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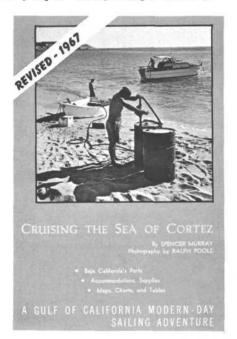
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THE COVER

Tuck, a 6-year-old collie doesn't look like Ferdinand The Bull, but he likes flowers just as much. Wyman E. Bramhall, Los Angeles, took this spring photo north of Lancaster, Calif. A 4x5 transparency with 1/50 at f25. Lack of rain may limit wildflowers this year in most parts of the desert.

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New Books for Desert Readers

STANDER STANDERS

RELACIONES

By Zarate Salmeron

Translated by Alicia Ronstadt Milich

This account, written by a 17th century Franciscan Father, is about the only source of knowledge published for much of the period from 1538 to 1626. It is surprising that until now it had not been translated in book form. In it, the Navajo Indians are mentioned for the first time, called "Apaches de Nabaju." Reference is made to six Zuni pueblos through which Onate passed on his way to the Gulf of California, and Salmeron writes of the high quality of garnets found in New Mexico and about mineral deposits of the Socorro Mountains and the extent of mineral wealth of the province in general.

Salmeron gives a fascinating report of the men resembling Chinamen or Filipinos that a group of soldiers met along the Gulf of California at 39' who indicated by signs they came from very far away to buy metals and amber from the Indians. They had two ships anchored in a bay and were camped under awnings set up as tents. This, of course, suggests that another race of people preceded the Spanish to New Spain.

Other interesting tidbits will be found among the 121 pages of this book. Hard-cover, \$6.00

BOATING AND FISHING Guide to Mexico

By Spencer Murray

Covering the west coast of Mexico only, this little paperback delivers a wealth of information for those interested in fishing anywhere along the line from El Golfo to Topolobampo. Instructions for navigating your boat into each harbor along with advice for cutting the red tape with Mexican port officials, anchorages, ramps, trailering information, and a wealth of incidental advice is fully covered by writer-adventurer Spencer Murray. Marlin, cabrilla, rooster fish, red snapper, lobster, yellowtail, sailfish and grouper are prevalent in these waters and Spence tells you where to go for each variety. Illustrated with photos, 35 pages, \$2.00.

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ORIGINAL JOURNALS OF HENRY SMITH TURNER

Edited by Dwight L. Clarke

"I must acknowledge here that I have no taste for this mode of life—it contains not a single charm for me. There is nothing in the wild scenery about me to interest me for one moment." So wrote Captain Henry Smith Turner, as he marched along the Gila River in the conquest of New Mexico and California with Stephen Watts Kearny in 1846. He did admit, however, that the climate of the desolate region was unparalleled.

As a professional soldier, he brushed shoulders with many of the great leaders of his day. He regretted that Lt. Emory had a mania for immortality and was not more agreeable as an associate. His comments in this journal were meant for his wife's attention only, but they do provide researchers today with a frank appraisal of persons and conditions during the campaign, as well as a good look at the Indians and wild life native to the region at that time.

The book will be welcomed by researchers and collectors of Western Americana, although it isn't one you would choose to read for entertainment. Hardcover, 173 pages, \$5.00.

NEVADA'S TWENTIETH CENTURY MINING BOOM

By Russell R. Elliott

The history of Nevada has been very largely dependent upon two great mining booms—the Comstock Lode discovered in 1859, and the Tonopah-Goldfield-Ely boom which began in 1900. Writers have been blinded by the opulence of the Comstock characters and often overlooked the color of the 20th century boom. This is

the first detailed work to center attention upon it and in so doing, place events of discovery in proper historical perspective. Much of the fantastic wealth of the latter boom remained in Nevada to stimulate other economic activities, while the Comstock era contributed little stability to the

The author writes of the early discoverers and promoters of the 20th century mines-Butler, Stimler, Marsh, Tex Rickard, Borax Smith, and so forth-but in addition he writes of the big combines that developed the copper mines of Ely active today, of the labor leaders and strikers and politicians who influenced the state's second mining boom. The text is lively, readable and fresh. Hardcover, 344 pages, \$5.95.

OLD CALIFORNIA MINES (1899) By Charles Yale

A reprint from California Mines and Minerals, in 1899, most of the information in this paperback applies to mines along the Stanislaus River area and the Mother Lode country, although statistics cover all counties of the state in regard to output of gold and silver, fineness of gold, etc. It describes early dredging methods, miner's accommodations, riverbed mining, and other conditions typical or mining of that period. I doubt that the book will have much meaning for lost mine seekers, but prospectors and oldmine buffs will find the material interesting. Paperback, 73 pages, \$2.00.

BISBEE NOT SO LONG AGO By Opie Rundle Burgess

Bisbee, Arizona, in 1881 was not racially integrated. An unwritten law excluded Chinese from mining camps. This law wasn't based upon racial prejudice, however. It was made to protect the widows and children of foreign miners whose livelihood depended upon an income made by doing washing and ironing for the miners. Chinese from nearby Fairbanks were welcomed when they brought fresh vegetables to sell, but they had to leave the canyon before sundown.

The above is an example of early local color assimilated in this book. Much has been written about this rip-roaring copper mining town. Its Indian raids and lynchings are legend. But here, for the first time, is told of the town's transition into a responsible city by the daughter of an early pioneer. Fine photographs dating as far back as 1881 are included, many never before published. Hardcover, 179 pages, \$5.95.

AIRPORTS OF BAJA CALIFORNIA

Compiled by Arnold Senterfitt

This first full-color aeronautical chart of Baja California locates 114 Baja airports, as well as airports of entry, fuel stops and navaids. A mileage/course table is helpful in flight planning; communication facilities are listed and a pronunciation guide to useful Spanish expressions so you can ask for fuel, oil, etc., if you don't speak Spanish.

A special feature for pilots unaccustomed to dirt runways is a recommended way to approach and look over the field before landing to systematically evaluate the runway. Additional helpful information is also included. Baja explorers on land will find the map useful for locating various canyons and peaks. \$2.00.

LANGUAGES. TERRITORIES AND NAMES OF CALIFORNIA INDIAN TRIBES

By Robert Heizer

After two centuries of acculturation, Dr. Heizer feels we know as much about the California Indian society as we ever will. The main tribal units among these Indians are determined by their languages. A tribal map is therefore a linguistic map. Four such maps are contained in this book, two of them large fold-out maps which show the territories occupied by California Indian tribes. In addition to an outline of past efforts to trace these tribes, the book provides lists keyed to the Merriam and Kroeber maps showing tribal territories in separate regions of the state, a review of concepts of native land ownership, types of tribal organization, and a bibliography. Book is designed for scholars, but not for entertaining reading. It is hardcover, 62 pages, \$4.00.

BOTTLE BOOKS

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All by J. C. Tibbitts, first president of the Antique Bottle Collectors Ass'n. and editor of "The Pontil". Order from author at The Little Glass Shack, 3161 56th St., Apt. B, Sacramento, Calif. 95820.

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- Many Roads to Rainbow Bridge

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Doing it the Old Way

by Margaret Mazei



n this landlocked copper valley in central Arizona, it is customary to consider mining the only breath of life. Few people, even among the

local residents, are aware of another cottage-type, industry which has quietly been growing to a position of some dignity. Pottery and its sister art form, ceramic engineering, is related to mining through its raw material. The clay used by the potteries in this area is a strip of buffer material between the mineral ore and the hard shale.

Among the few potters in the nation to make their living at their craft are Bob and Charmion McKusick, who live and work in Globe, Arizona.

Bob has lived in the area since he was a child. His interest in pottery was sparked by a handicap; not his, he hastens to point out-he avers staunchly that he was always able to do anything circumstances called on him to do-but in the eye of the beholder. When Bob was 15, he lost his left hand in an accident. The following year he spent the summer on the West coast where he apprenticed with a family friend who had a dinner ware factory. Later he enrolled at the University of Arizona where he studied chemical





engineering as a prerequisite to ceramic engineering-and met Charmion. The young couple found they could work well in double harness, and were soon joined in the pottery business as well as matrimony. For some time the noted sculptor, painter and potter, Ted DeGrazia, was their landlord as well as their close friend.

The McKusicks use an almost forgotten 13th century technique in putting the color glaze on their tile. It is a Moorish process in which each hue is applied individually in an inlay by means of a syringe. The glaze itself is home made. Bob takes responsibility for the manufacture; Charmion does the art work. Their duel efforts achieve other accomplishments in addition to the tile. Among these is sgraffito pictures. These are made by pouring





several layers of colored cement and scratching through to the desired color for each feature.

Examples of their sgraffito art hang in the Paradise Valley Country Club, also in the Club lounge are eight mosaic tables featuring desert animals and on the wall is a 41-square foot tile mural of desert birds which were made in their studio. Many homes in the exclusive Paradise Valley area are paved with McKusick floor tile, which is currently their specialty. So far as they have been able to determine, they are the only factory in the United States making the 12-inch tile by hand. They make three patterns, square, hexagonal and what they call a



"Granada" pattern, which they can only describe as "pieces that fit together."

Their work has been admired by many who were unaware of it-they made the Roman goblets and plates for the stage play The Robe, which had its world premiere in Phoenix, and they constructed two large tile murals of sand paintings in the Navajo Tribal Civic Center at Window Rock, Arizona. Sand paintings are prayers and, by tradition, must be destroyed at sundown. This is the first time anyone has been commissioned by the Tribe to reproduce one in any art form. The McKusicks were chosen for the task of preserving an example of this ancient art partly because of Charmion's background in anthropology and partly because of the excellence of their work.

Other products of the McKusick Mosaic and Tile Co. can be seen as far away as Hawaii and Old Wick, New Jersey. However, the sheer weight of their floor tile pretty well restricts that market to Arizona, Colorado and New Mexico.

The factory claims one full time employee and uses the work of three Indian artists. Their longest association has been with Daniel Nash, San Carlos Apache who was commissioned to do paintings for the Paradise Valley Country Club. The Hopi, White Bear, is a leading authority on the Hopi religion and was commissioned to complete the noted Goldwater Kachina collection. Navajo artist, Beatien Yazz, was, as a little boy, both hero and illustrator of the Alberta Hannum book Spin a Silver Dollar.

Less glamorous, but very impressive, are the machines which do the dirty work of the pottery. These consist of crushers of different sizes, huge screening beds, 50 gallon drums fitted out like brobdignagian butter churns, and, of course, the kilns. The tiles are in these for three days, counting the time it takes to heat the kiln to the necessary 2000 degrees and then to allow it to cool.

Bob and Charmion have a strong feeling that the term "craftsman" is widely misused; that the hobbiest who spends months turning out one perfect specimen for a craft show should be termed an artist. In a recent article in a well known magazine which dealt with several different crafts, two woodworkers were the only ones mentioned who made their living from their craft. The rest, according to these working craftsmen, should have been called artists. The new leisure, they feel, is going to mean an upsurge of interest in the old ways of working with the hands.

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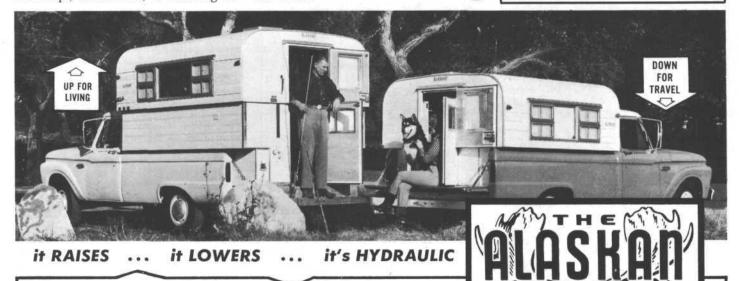
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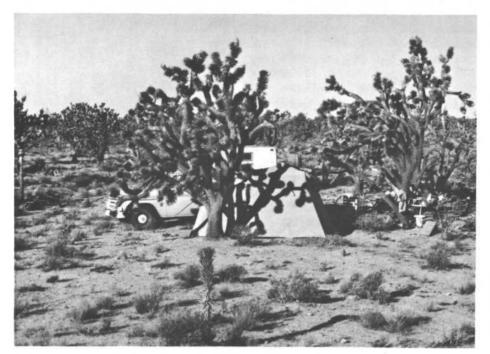
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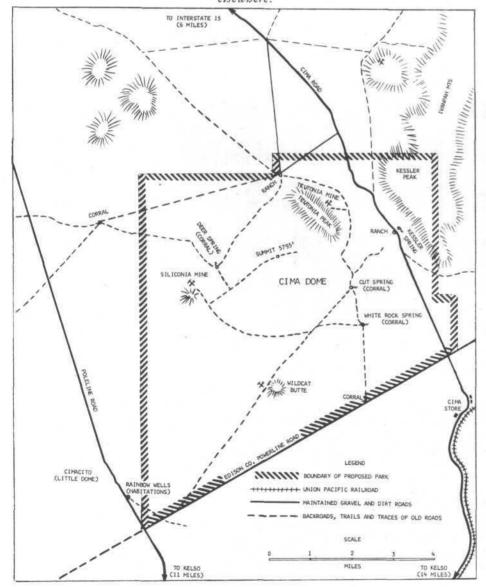
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If the Cima Dome becomes a state park, areas like the above will be restricted to communal campsites and those who prize camping in solitude will be forced to look elsewhere.



LOOK TO THE

GIMA DOME

by Dennis Casebeir



HAPED like an inverted gold pan ten miles round and a thousand feet high, the Cima Dome of the Ivanpah Uplands looms up in one of Southern

California's few remaining areas of unspoiled beauty. Currently being considered for inclusion in the State Park System, this region in San Bernardino County 30 miles east of Baker should be visited before it becomes "civilized" with regimented camp grounds.

A geological wonder, the understructure of the dome is quartz monzonite, similar to the material that forms the extensive outcrops which give the country around Joshua Tree National Monument so much charm. Clusters of giant granite rocks are well-suited to climbing and provide picturesque nooks for camping (see cover DESERT Nov. '66), especially in the vicinity of Teutonia Peak. The alluvium here is of coarse sand, ideal for camping because it retains less dust than finer sands.

The dome itself presents a challenge to view-seekers. A combination of Joshua trees and juniper growing among grotesque boulders under a brilliant sky and viewed from the "top of the world" is worth the climb up the dome's gradual incline. From there you also might spot some of the area's elusive inhabitants—coyotes, fox, wildcats and wild burro.

Compared with other areas of the Mohave desert, Cima Dome does not have an outstanding quota of old mines. An extensive one at Teutonia Peak was once a silver producer and its two shafts are said to be 40 and 200 feet deep, but little more of its history is known. The Siliconia, a larger and more recently worked mine, is located at the northern end of an unnamed hill about one mile southwest of Deer Spring. This place is especially scenic and provides an endless

number of protected campsites. To reach it, however, you must have a 4-wheel drive vehicle.

Crisscrossing the dome area is a network of old roads which, for the most part, can be traced back to the building of the Edison Company powerline on its way from Hoover Dam to the Los Angeles area. Prior to the coming of the powerline, a complex of roads existed to serve local needs, but when the wellmaintained powerline through the heart of the desert was installed, earlier roads were abandoned. These provide good hiking trails today.

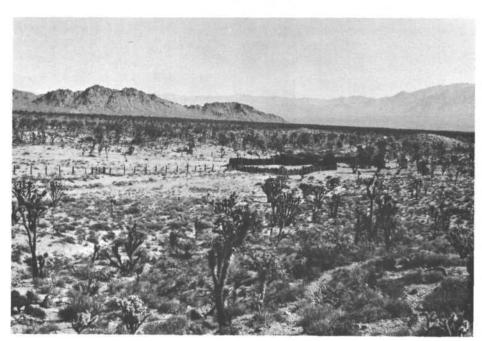
Cima Dome is approached via Interstate Highway 15 and is marked on the freeway with a sign reading Cima Road. For the first five miles the road is blacktopped, then follows a good graded road for the remaining 13 miles to Cima, a tiny town on the Union Pacific Railroad. Here there is an excellent store where supplies may be obtained. It is open on weekends. At a distance of about 16 miles from the highway, the road passes under the Edison Company powerline and a road may be followed to the southwest to get around the southern side of the

Midwinter is rather cold for this trip, and mid summer may be uncomfortably hot. Late February through mid-May is ideal, as are the fall months. Much of the area is at present leased by local ranchers from the BLM and utilized as a grazing range for cattle. Improvements made by these industrious people are impressive, especially near the springs. Their investments have been substantial in order to make the scant water supply available when and where it is needed for the

cattle. Local ranchers do not oppose campers generally, but they have some tragic tales to tell. A bullet hole in a water tank, for instance, might go unnoticed until it is too late to make the necessary repair to save stored water. Expensive steer have also been wantonly slaughtered for no useful purpose by vandals. This is a poor area for target shooting as both cattle and people can disappear among Joshua trees and go unnoticed until a stray bullet makes an unfortunate mark. For these reasons, we hope that DESERT readers going into the area will make a special effort to maintain a clean camp and leave water storage facilities undisturbed.

The fact that this area has been declared suitable for a desert State Park does not mean it will become such. Factors which tend to work against its acceptance by the State Legislature are the lack of good roads and the general isolation of the area. These factors would increase the cost of developing the 2000 campsites and the 300 picnic sites of the proposed park plan. It is estimated that should the area be declared a park, however, annual visitors would number 350,000. For those who enjoy seclusion and adventure in remote places, this is a fearsome

(Editor's note: It is hoped that the threat of prospects such as the above will impress upon desert adventurers the importance of policing their own camps. It is only by doing this that we can prevent the areas still left to us from being turned into regimented State parks where exploration has to follow prescribed trails and camping must be suffered en masse.





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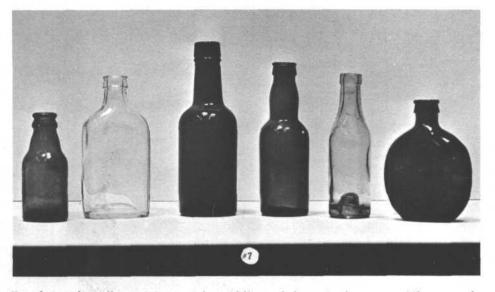
All These Hidden Splendors in the Land of The Sleeping Rainbow



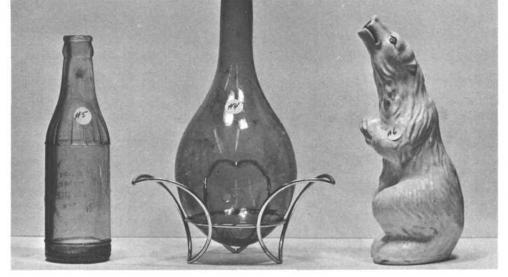
The Middle-Aged Dump

Judging from the shape of this bottle, number one was used for Scotch Whiskey. It is a full quart, dark amber in color and is a so-called whittle mold. This lip was either applied or tooled, as the mold mark stops well below the top edge of the lip. Number two is a Chapin and Gore barrel bottle. The words on it read "Federal Law Forbids," but the fact that it is a barrel bottle should be enough to classify it as collectable. It is quart size, amber in color, and was used for whiskey. We are not sure just what came in the blob top beauty number three. It has been supposed that it contained a liqueur of some type. Apparently this bottle is machine made, although the manufacturing process seems foreign to this country. The mold mark on the body of the bottle and the one on the last part of the lip do not align, making it appear that the lip was formed in a separate mold and applied to the bottle later.

by Lee Howard



For those who collect miniatures, the middle-aged dump is the answer. These sample bottles date back shortly after the repeal of the 18th amendment.



Number four is a free-blown round bottom wine bottle. There are hand blown and automatic machine-made bottles of this type also, but the free-blown ones are the most desirable. Quite a few have been found in the middle age dump. Number five, the Best By A Damsite Coke bottle is a valuable collector's item and classified as a commemorative bottle. The embossed label was designed by Otto Underhill who, along with Clarence Underhill, was the original owner of the Coca Cola Bottling Company in Las Vegas. This bottle was used from 1933 to 1941 for the bottling of their products during the construction of Hoover Dam on the Colorado River. The Polar Bear, number six, with the words "Casa Mexico D!F!," which, translated, means House Of The Federal District Of Mexico. Its value is unknown, but it is interesting.



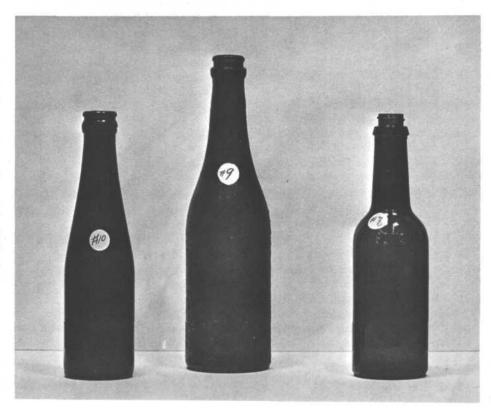
EET you in the dump," is an expression familiar to bottle collectors. They are speaking of old dumps of course. New dumps are frowned upon,

as the everage new dump produces little in the way of valuable bottles—today, anyway.

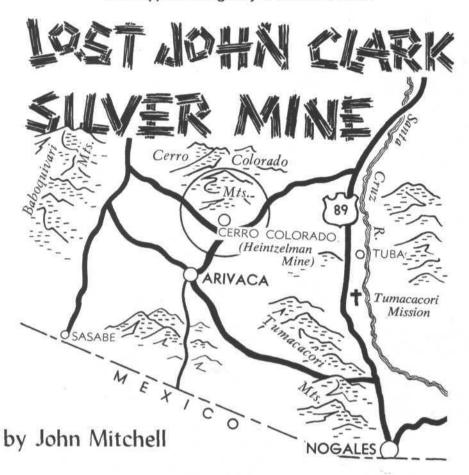
But what about the in-between dump the middle-aged one that dates between the early 1920s and 1950s?

Owing to population increases and urban building booms of the past several decades, many of these middle-aged dumps have been covered with buildings. Some, however, still remain accessible to any bottle digger who would like to try his luck. One such dump we like to probe is located near Las Vegas, Nevada. Interesting and fair to good bottles have been found there. For collectors who don't demand rare antiques, the middleaged dump is suggested and there is at least one adjacent to every town. The accompanying photographs are of bottles found in this type of dump. All are of interest to collectors because they just miss the "antique" classification, but are becoming rare and soon will rank with the best in value.

Dr. J. G. B. Siegert & Sons Angostura Aromatic Bitters. Number eight has been found in several different sizes and in amber and green colors. Although this bottle is made by an automatic bottle machine and has a screw top, it is marked Bitters, and is collectable. Number nine is of an unusual type of rough texture and is dark amber in color. The neck is slightly crooked, as if it had been removed from the mold before it had been allowed to cool to the right degree. This often happened in the making of handblown bottles. Embossed on the shoulder of this bottle are the words Ruf-Amber. We know of only three of these bottles that have been found and they are now in the hands of collectors. The principal attraction of this type of dump is realized in bottle number ten—the Royal Ruby Red Beer. It is the only available, known red bottle that was used commercially. Collectors consider them a "must have" item.



By reader request DESERT Magazine will reprint a series of articles written by the dean of lost mine yarns, John Mitchell, which appeared originally in 1940 and 1941.





OMEWHERE in the Cerro Colorado mining district, southern Pima county, Arizona, is an old mine shaft believed to be about 125 feet deep and to con-

tain, besides a rich silver vein, 40 tons of silver ore assaying 2000 ounces to the ton. The mine was discovered and worked for a short time by a man named John Clark, who left St. Louis, Missouri, in the early '50s to prospect for gold and silver in the mountains of the West. Making his way across plains swarming with hostile Indians, he came finally to the Cerro Colorado district where he located a vein of rich silver ore. The Heintzelman, Austerlitz, Albatross, and many other noted mines were being operated under protection furnished by the United States government.

In 1861 the soldiers were withdrawn from the territory of Arizona to fight in the Civil War. As soon as the troops were gone the Apaches under Cochise and others again started their raids on the small mines and ranches. Many miners, freighters and ranchers were waylaid and

murdered. The two original locators of the old Albatross mine about five miles south of Cumaro wash were killed in a small cabin near the mine entrance. Their twin graves may still be seen on the high bank of the arroyo just north of the old tunnel.

Raids were frequent at the Canoa and Sopori ranches on the Santa Cruz and many people lost their lives. During an attack on Sopori an American woman gave birth to a girl baby. The mother was murdered on the high point of rocks just across from the old adobe ruins where she along with others had fled for safety. The baby girl was rescued later and grew to womanhood in Tucson.

Two Mexican bandits, disguised as miners, secured work at the Heintzelman mine and a few days later when they had familiarized themselves with the lay of the land, murdered John Poston, the superintendent, and eleven other employees. The Mexican miners joined the bandits in looting the mine offices, store and the ore bins at the mine. In their haste to reach the border ahead of the officers they were forced to abandon much of the stolen loot. The road from the mine to Saric, Sonora,

was strewn with merchandise taken from the store.

When the officers arrived from Tucson several days later they found the bodies of John Poston and eleven employees, both men and women, scattered over the hill-side between the store and the mine. The bodies of the dead were buried on the little red hill just north of the old store and office buildings, only the foundations of which now remain. The foundation of a round watch tower at the northwest corner would seem to indicate that the early day miners had to fight as well as mine.

Clark packed his ore in strong, leather bags and had made one shipment of 40 tons to St. Louis, with a caravan from the Heintzelman mine. This shipment netted him \$80,000 as silver at that time was worth \$1.00 per ounce. When the soldiers were withdrawn and the Apaches again started their raids Clark had 40 tons mined and stored in a small rock house near the shaft. Foreseeing that he would be unable to ship this ore with any certainty of it reaching its destination, he threw it back in the ground and pulled the timbers out around the collar of the shaft, allowing the loose dirt to cave in on the ore and the vein from which it had been mined.

Clark and the other miners and ranchers who had not been killed abandoned their mines and ranches and fled to Tucson for safety. The Apaches continued their raids until 1886, when by the joint operations of the American and Mexican governments they were rounded up and placed on reservations where they have remained to this day.

Clark died in the East, silver was demonetized and the old mines, with few exceptions, have laid idle ever since. All records of Clark's early day operations seem to have been lost. The late Mrs. Mary Black, wife of Judge Black, pioneer jurist of Santa Cruz county, taught school at the Heintzelman mine in the early '60s and knew Clark well. She told this writer she saw the pile of rich ore that Clark threw back in the old shaft. She further stated the shaft was located some distance from the Heintzelman mine and that it was on one of the great fault fissures along which the rich ore bodies of the district are found. These fissures are in the old andesite and are water courses through which the rich mineralized solutions circulate. Wherever a vein or hard dike cuts across the fault it has a tendency to dam up the solutions causing them to precipitate the rich ore in great bodies of highgrade silver-copper. The rain water that falls on these soft outcrops

forms a weak soultion of sulfuric acid which leaches the silver-copper and carries it down to water level where it is precipitated as secondary enrichment. The soft outcrops are made up of kaolin and iron stained quartz badly crushed. Occasionally rich pieces of ore that have resisted the leaching process are washed out by heavy rains.

In the early days the Mexican miners would leave their work after each storm to hurry along these fault fissures and gather up these rich pieces of float, which often assayed from 5000 to 6000 ounces silver and 25 per cent copper. One good chunk was often enough to buy sowbelly and beans for several months.

Clark's mine was somewhat isolated and it was not unusual to see small bands of Apache warriors riding the high ridges just out of shooting distance for the oldtime rifles in use by the soldiers and miners throughout the country. A sub-chief called Bobtailed Coyote and known to the American and Mexican miners as Robert T. Wolf, passed Clark's camp frequently. One day, when about half drunk, he left his little band of warriors out on the flats and came into camp alone. He was in a surly mood and demanded ammunition, tobacco, grub and more firewater, threatening to raid the camp if he did not get it. Clark told him that while he was short on all the above named articles, he did have some strong medicine with which he could lick hell out of the chief and any number of his warriors.

Clark was bothered with rheumatism and on one of his trips east he had purchased one of those old time electric machines used throughout the east by quack doctors. Clark set the machine up in the back room of his cabin and had been having a lot of fun by trying it out on the Mexican miners and freighters in the camp. Naturally the drunken Indian was anxious to know more about the white man's strong medicine. After some persuasion the Indian took hold of the handles which had been run through the wall into the front room. At a given signal one of Clark's friends in the back room turned on the juice by cranking the machine. The chief got the surprise of his life and when the cranking stopped and he was able to turn loose the handles he rushed out the front door and never stopped running until he had reached the little band of warriors he had left on the flats.

Bobtailed Coyote continued to ride the high ridges just out of rifle range, but never again came into camp. However, always when passing that way he never failed to dismount and walk up to the top of a little hill and go through some insulting movements. This annoyed Clark and he decided to teach him a lesson that he would not soon forget.

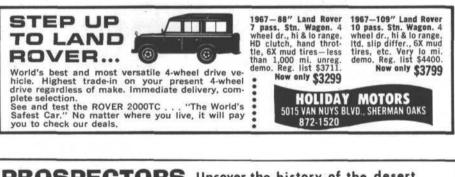
One of Clarks' friends in the East had sent him a high-powered rifle that had just been put on the market. This gun carried several yards further than the guns then in use in the West.

Sometime later the chief and his band of warriors were seen riding the high ridge just east of the mine. As had been his custom in the past, Bobtailed Coyote dismounted, climbed to the top of the little hill on the prairie and prepared to start his show. Clark poked the barrel of his rifle through a crack in the wall and waited. When the chief was humped over Clark fired, putting a bullet through the fat part of his buttock. The chief

jumped about six feet into the air and let out a lusty war-whoop. He hit the ground running and the last seen of Bobtailed Coyote he was going over a hump in the prairie as fast as any buck Indian had ever done before or since.

Since the Apaches were rounded up in 1886, Mexican and Indian gambusinos have made a good living working these old silver mine dumps. There is not much left on the surface but any prospector or miner able to read the surface indications should, at the new price of silver, be able to find something good in these old silver mining camps that have so long been idle. Then too there always remains the possibility of running onto the old Clark shaft with the 40 tons of 2000-ounce silver ore at the bottom.







CAVE PAINTINGS OF SONORA

BY CAMPBELL GRANT



HE inclined rock ledge I inched along had narrowed to about 18 inches when I first saw the wasps. They were coming out of crevices in

the fractured rhyolite cliffs ahead and there was no way to continue up the ledge without crawling directly over them.

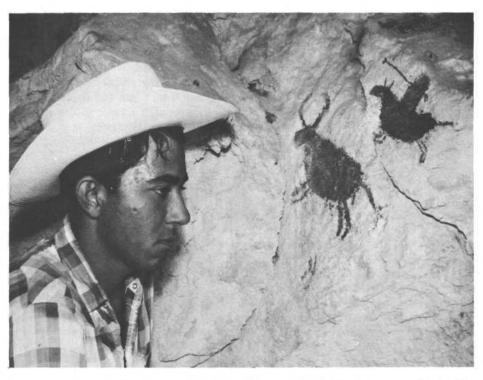
I called to my companions, 30 feet below, to explain the problem. Past experience with wasps had given me a healthy respect for them, but we had driven over 500 miles to photograph the prehistoric rock paintings on this 60-foot high cliff above the stream bed and I had no choice but to continue.

Miraculously, the wasps ignored me as I worked past their nest. Presently the ledge widened and I lowered a climbing rope to my friends at the base who tied on the camera equipment.

For a number of years I have been recording aboriginal rock drawings of North America. The drawings occur as paintings (pictographs) and as rockpecked or incised designs (petroglyphs) wherever Indian cultures coincide with rock regions. For these studies, I went through the scanty literature on the rock drawings of Mexico in an attempt to relate the rock art styles and techniques in the Great Basin and American Southwest to examples below the border. I had heard of an area between Hermosillo and Guyamas in Sonora, Mexico, where there was a concentration of unique paintings. It was this that lured me now to the Sonora site. Accompanying me were Marshall Bond and Dean Blanchard of Santa Barbara, both experienced in exploratory expeditions.

We spent our last night under a roof in Hermosillo and bought a few presents for the family of Senor Manuel Lopez who, with four brothers, owns the cattle ranch where the paintings are located.

South of the city, the low, rugged Sierra Santa Teressa rises several thousand feet above the coastal plain, cut in several places by streams that have created deep gorges through rock formations. We met Manuel Lopez at the family-operated cafe on the highway. He is a large, well-fed looking man with a small quiet wife



who does all the cooking at the cafe. Behind the cafe is a tiny chapel and in the courtyard, the Senora's collection of local birds in handsome cages made of split *pitahaya* cactus.

After giving the presents and having Coca Colas on the house, we followed Lopez in his truck to the spot where we were to camp during our stay. Dean's new 4-wheel drive station-wagon was ideal for the rough desert roads, but stiff thorntree branches quickly removed its "new" look.

Our camp was at the entrance to the main gorge, the Cara Pintada or Painted Face canyon. Before dinner, I made a short reconnaissance of the cliff faces and rock shelters in the immediate vicinity and found many single figures and simple groupings of running deer, hunters with bow-and-arrow, and elaborate geometric designs suggesting fabric patterns. All of these were carefully painted in red and black and were very small, some figures less than two inches high.

In the morning we explored caverns formed by the rhyolite, a volcanic rock. Here were a few scattered paintings, all in shallow caves. With rare exceptions, the American Indians chose to paint and carve their pictures by available light. The

lower end of the canyon was blocked by a deep pool of water extending between the sheer cliff walls, walls barely 10 feet apart and as much as 150 feet high. After skirting the water barrier we were able to descend into the upper dry part of the gorge by anchoring our rope to a fig tree that clung to the rock. On our way down. Marshall Bond was the first to see the paintings on the opposite, sunny side of the canyon. Though we were only 50 feet away, most of them were difficult to see without binoculars. The mural consisted of innumerable small pictures in red, white, black and yellow. A few were near the base of the cliff, but most were 60 and 80 feet above the stream bed. We were able to climb to all but two of the painted areas. The crumbled conditions of the rock, ledges less than 10 inches wide, and a due regard for our necks, made us decide that they were not worth the risk.

The drawings here were of two types. The first consisted of human and animal figures on a very small scale. Some men are shown with feathered headdresses in dancing poses, and others armed with bow and arrow, shooting deer. There were several instances of horsemen. The animal figures shown are cattle, deer,

horses and feathered serpent, a common aboriginal motif from central Mexico to Tennessee. Several areas were covered with handprints in black or red. The geometric designs, usually in red, white, and black, were made in very fine lines suggesting fabric or pottery patterns.

One day another Lopez brother took us to a canyon called the *Tetaviejo*. There were five sites here located in rock shelters and quite different from those of the *Cara Pintada* gorge. Featuring animals, fish, men, horsemen and cattle, they appeared to be the work of another group of people. Some resembled the rock paintings of the Seri Indians from Tiburon Island and the gulf coast west of Hermosillo.

One site was beside a *tinaja* formed by summer rainfall, 40 feet up a cliff. In dry years, the Lopez brothers have pumped water from this reservoir into their stock tank at the base of the cliff. Our only access to the pool was by climbing a ladder made of poles, baling wire and notched tree trunks. I attempted to climb this rickety creation, but made the mistake of looking down when half way up. Lopez, delighted at my failure, climbed the ladder like a monkey.

On another day we were guided by Ramon, a Seri fisherman, to a painted cave near Bahia Kino, a small fishing settlement on the gulf. Paintings of stickmen crudely drawn in red appeared to have been painted with the finger. Though the paintings were disappointing, Ramon was not. With his horn-hard bare feet, he raced over the sharp volcanic rock in an astonishing manner. My hiking boots were cut and torn from the trip, but Ramon's feet didn't show a scratch.

On a previous trip Dean had arranged for a Senor Martinez to guide us to a site described as resembling the Sistine Chapel. After picking up this fine fellow we drove for hours through a thorny forest, all the while listening to his tales about lost treasure hidden by soldiers who had stolen it from the bank during the revolution, and then had been killed before divulging the secret. On certain days, said Martinez, if the wind was right, groans and cries from the slain soldiers were still to be heard. Eventually we arrived at a rock shelter that had been used from time to time as a sheep corral. On its rough walls could be distinguished two crude red figures of the Bahia Kino type. So much for Senor Martinez and the Sistine Chapel! Our return trip was

The following day, our last in the area, was the most rewarding of the trip.

Manuel Lopez had driven to our camp the previous evening to share our tequila apertif and to bring a present of a roasted chicken. He listened to our account of the various painted sites we had visited with his brother, nephew and son, and then said, "But you have not seen the best pictures. They are in the narrow gorge directly above the water barrier in the Cara Pintada. It is a tapestry."

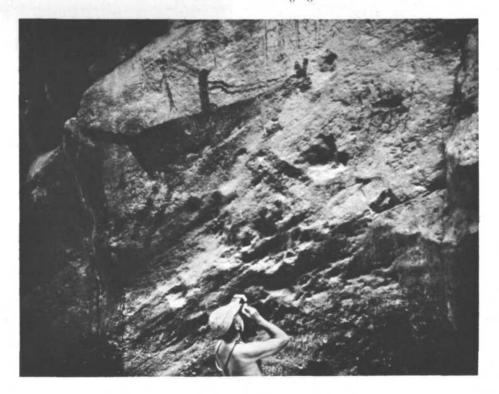
Fresh from the Sistine Chapel, we were

skeptical about the tapestry, but as the area he spoke of was only a short distance by trail from our camp spot, we decided to investigate it.

Directly below the cliff we had climbed on our first day, the stream bed dropped 40 abrupt feet by way of a dry waterfall and the descent looked impossible. The simplest solution seemed an approach by water from the lower end. Marshall stripped off his clothes and swam into



Above: Horseman and geometric design from the Cara Pintada cliff. Below: The large borseman in the lower gorge.



the gorge and out of sight around the first bend. After what seemed a very long time, he called for us to join him. The problem of transporting camera equipment was solved by using an air mattress to float everything to the upper end of the water section, which proved to be about 75 yards long between narrow rock walls. From the dry stream bed where we landed our gear to the waterfall that had blocked our approach from above, there was a stretch of not more than 200 feet literally covered with paintings, all above the summer flood line.

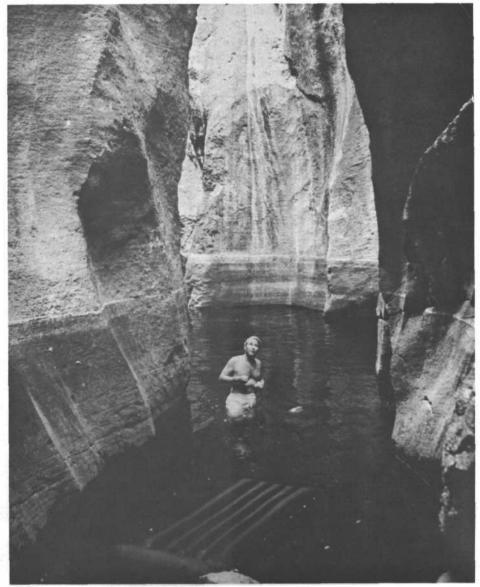
The first thing to catch my eye was a nearly life-sized painting of a feathered figure on horseback, identical to a tiny rendering on the cliff above the falls. There were many geometrical patterns, but the most curious were rows of small mummy-like figures in red and white. Faceless and armless, each carried a different design pattern on the body. These figures were painted both vertically and horizontally and so crowded and overpainted that the effect was not at all unlike a tapestry. On a high point on the gorge wall was a typical painting of a thunderbird, one of three we photographed in the canyon and similar to those found in Missouri, New Mexico and central Canada. It is surprising that most of the pictures are still in fair condition, considering their location on open cliffs subject to wind and water.

Who painted these curious and provocative pictures? How old are they and



Above: Small geometric patterns found in the lower gorge. Below: Paintings on fireblackened walls of the Tetaviejo rock shelter.





what do they mean? These inevitable questions are difficult to answer.

To arrive at any valid conjectures on the first question, it is important to know something of the history of the area. When the Spanish padres established their first missions in Sonora in the early 17th century, Pimeria Alta (northern Sonora and southern Arizona) was occupied chiefly by various Piman tribes such as the Pima, Papago and Opata. These people were agriculturalists with a highly developed knowledge of canal irrigation. Surrounding them were the aggressive and warlike Apaches to the northeast, Seris along the Gulf of California to the west, and Yaquis to the south.

The most feared were the Seri, a handsome, tall people (average height of men, 11 feet) with a low level of culture. Their chief weapon was the poisoned arrow from which the slightest scratch was fatal. Once occupying a territory along the gulf several hundred miles long and stretching inland to Hermosillo and the *Sierra Santa Teressa*, the Seri were decimated by a series of extermination wars and finally confined to Tiburon Island and a small section of the adjacent coast.

The fiercest battles fought between the Spanish troops and the Seris took place in the Cerro Prieto, a rugged section of the Sierra Santa Teressa and slightly north of the main painted sites in the Cara Pintada gorge. Some of the simpler paintings in the Sierra canyons are undoubtedly the work of the Seri.

It apears most likely that the Sierra Santa Teressa pictures are the work of several tribes occupying the same territory at different times to be near the constant water supply. It is possible that the more carefully executed paintings are the work of the Pima Baja, a tribe that split

from the main Pima group in southern Arizona due to Apache persecution and migrated to the country south and east of Hermosillo. The fabric-like patterns painted on the gorge walls are reminiscent of woven headbands and belts of the Pima.

Absolute dating of such paintings is not possible, but there are a number of clues to aproximate dating. The frequent depiction of horsemen and cattle makes it certain that these drawings were not made *before* the mid-17th century when the Jesuit missionaries introduced both animals into Sonora.

There is some superimposition of drawings at the Santa Teressa sites that indicates relative age. On this basis, the hand prints are the oldest, always appearing under other patterns. The mummy-like figures also appear relatively early and there are several instances where later crude finger-painted designs occur above them.

To interpret the significance of the paintings, the best method is to study what is known from rock art areas in other areas where investigations have been carried on for many years. In Australia, similar paintings are still being made by tribal chiefs and medicine men during ceremonies to renew the power of the tribe's guardian spirit, the giver of all things, rainfall, game animals, health, fertility and the like. The sand paintings of the Navajo performed a similar function in healing ceremonies where visual personification of unseen spirits aided by singing was thought to have a beneficial effect. In Southern California and in British Columbia, paintings were made on rocks during puberty rites. The Hopi Indians in Arizona often left pecked designs of their clan totems such as an eagle, bear track or turtle to commemorate a journey—the "Kilroy was here" idea. In many areas of western America, there are drawings of game animals, often impaled by an arrow or spear. These are undoubtedly hunting magic to bring good luck in the chase. The many paintings of deer and hunters on the Lopez Ranch suggest such a motivation.

On the basis of present knowledge, all that can be said with any certainty about the Sierra Santa Teressa paintings is that they appear to have been made sometime in the last several hundred years by various groups of Indians. These Indians were attracted to the area by the permanent water and the game that would be in such a vicinity as well as for protection from enemies in the rugged mountains.

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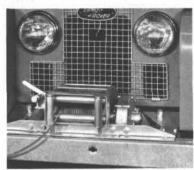


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The **Blooming Cactus**



HE entire cactus family is native to North and South America, but to nowhere else. Yet the appreciation of this odd group of plants has been

more enthusiastic in Europe, especially in Germany, than anywhere in this hemisphere. In both Americas, cacti flourish in desert places. Their manner of growth is various, but the flowers themselves are, without exception, exquisite in form and texture and usually of striking color.

The largest cactus in the United States is the Saguaro (Cereus giganteus) of Arizona, but the largest of all kinds of cacti is the Cardon (Pachycereus of several species), growing in Mexico. Each of its many branches, rising from a heavy, wrinkled trunk, aproaches in size a single Saguaro.

The Organ Pipe Cactus (Lamaireocereus thurberi) of Arizona and Mexico is also a large plant, but its individual branches rise from the ground in a spreading group and are neither so thick nor so tall as those of the Cardon. Its closeranked, vertical columns inspired its name.

Another group which reaches a large size is the Barrel Cactus, abundant in California, Arizona and northern Mexico. It is well named, for it consists of thick columns which might look like barrels, growing either singly or rising in clusters from the ground. The plant tissue is filled with moist sap and it is this plant that enjoys the reputation for saving travelers from death by thirst. Some barrel cacti grow taller than a man, but a height of two or three feet is more usual. When they bloom, they produce a circle of waxy red or yellow flowers at the top of each column. Some specimens are covered with long, red spines, others with yellow or straw-colored spines. All are formidably protected.

The most widespread, certainly, of all cactus plants is the Prickly Pear (Opuntia of many species). It is too abundant to be cherished, and yet it blooms lavishly with flowers that are a match for any others.

by L. S. Brand

Large as roses with a crisp, silken texture and colored yellow, rose or apricot, the blossoms are followed by an edible fruit sold as *tunas* in the markets of Mexico. The plant itself makes fine forage for cattle and horses, after its spines have been destroyed by fire. Opuntia of different varieties covers more territory than any other kind of cactus, both as natives of this continent, and in Europe, Africa and the Hawaiian Islands where it has been introduced.

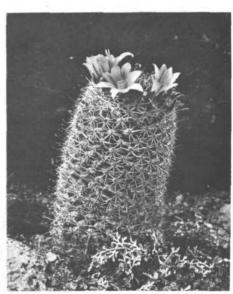
Cacti have no leaves, except during a brief period of immaturity in some of the Prickly Pears. Stem tissue has been thickened to do the plant's necessary photosynthesis and to store large quantities of water. Some varieties have developed greatly thickened roots, like the Peyote (Laphophora williamsi), or a thickened core like the Pencil Cactus (Wilcoxia poselgeri) to supply water within the plant where there is little in the environment.

Arizona and Texas have more different kinds of cacti than any of the other states. On the rocky terraces along the Rio Grande in southwest Texas, there is an



Above: Organ Pipe Cactus on the Arizona desert. Below: Barrel Cactus are filled with a moist pulp. Their flowers form a wreath around the top.

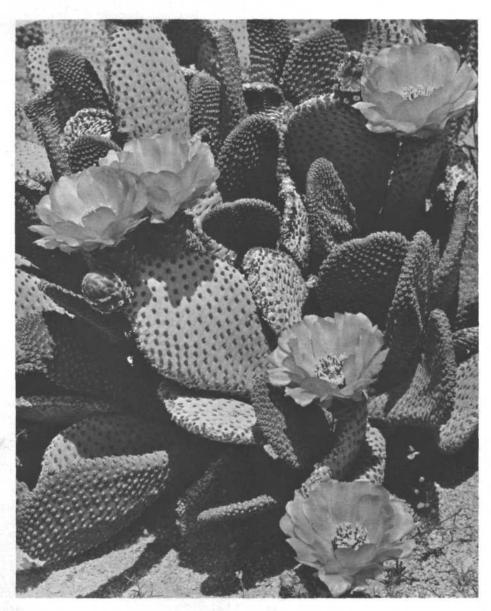




astonishing variety. Two kinds of Strawberry Cactus (Echinocereus stramineus and Echinocereus enneacanthus) consist of spiny fingers in masses as large as a bushel basket. When they bloom in spring, the mounds are blanketed with rose-colored flowers. A similar plant (Echinocereus pentalophus) spreads its long fingers over the ground in an extended mat and when it blooms, there are to be seen hundreds of large primrose-colored flowers, shading to white toward the center. The drawback is that the blooming period for all three kinds is so brief that it is difficult to be on hand at the right moment for the grand display.

The Claret Cup (Echinocereus triglochiatus) is also a lavish bloomer and, fortunately, it is widespread. Driving along any road in central or southwestern Texas, you will see large patches of brickred, which close inspection reveals to be a spread of Claret Cups.

The Lace Cactus (Echinocereus reichenbachi) is an elegant plant which is also widespread in central and southwestern Texas. "Lace" refers to the closely spaced white or reddish spines which follow vertical ridges of the low, cylindrical columns like a lacy decoration. It grows singly or in groups of two or three. At the top of the column it produces one to several large tulip-shaped flowers, of a bright rose color. The Yellow Pitaya (Echinocereus dasyacanthus) is so like the Lace Cactus in form that it is almost necessary to wait for it to bloom





Above: The prickly pear is the most common cactus on the desert. Left: The lace cactus is delicate and beautiful.

to be sure that it is different. The flowers are, however, of a golden color with the sheen of silk and sometimes they are so large that they hide the plant that produced them. There are many of these beautiful plants in the Big Bend National Park, but again, you must be there at the right time to see them bloom—usually in late April or early May.

A number of other small kinds may be added to the numerous species of *Echinocereus*. The Pineapple Cactus (*Thelocactus bicolor*) stands alone, but often in communities on a rocky hill or well-drained slope. Its flowers, borne at the summit of the "pineapple," are three inches across and of a clear rose color, stained with orange in the center. It is one of few that blooms several times during the summer.

Mamillaria of several species are abun-

dant almost anywhere in desert regions. The individual plant grows in the form of an inverted cup, covered with spiny nipples, and the small white or pinkish flowers form a wreath around the curved upper surface. The flowers are followed by bright-red seed pods in a second wreath which persists throughout the year. The *Mamillaria* grow singly or in groups, often under the protection of mesquite or other desert shrubs.

The Peyote (Lophophora williamsi), mentioned earlier, is an interesting plant. For one thing, it has no spines—only tufts of soft wool. And for another, it contains alkaloids that have long been known to produce hallucinations. As mescal buttons, the Indians of Mexico chew the dried plant tissue to induce a state of euphoria and also in rituals of healing and of prophecy. It is now being used experimentally in the United States in the treatment of nervous or mental disorders. The plant is a gray-green ball, two or three inches in diameter which is marked in a pretty pattern of depressed lines and little tufts of white wool. Small pink flowers appear several times a year, either singly or as a tight little group of two or three in the center of the plant's upper surface.

The Pencil Cactus (Wilcoxia poselgeri), also mentioned earlier, is so astonishing when its lovely flowers look out from a tangle of dry brush that it adds the value of surprise to its other merits. The plant itself is actually hard to find, because it appears scarcely distinct from the clutter of dry mesquite twigs in which it usually grows. But in early spring the "pencils" reach for the light and produce strikingly beautiful rose-red flowers, the more striking by contrast with their unlovely environment.

The Fishhook Cactus (Hamatocactus setispinus) grows almost anywhere and blooms almost any time during the summer. It prospers where desert conditions are extreme. The flowers are of a fresh, clean yellow, often marked with orange in the center. They are borne singly or in twos at the peak of the prickly, low column.

If the many kinds of cacti all bloomed at the same time, they would offer an incredible display. But the truth is that their period of bloom is short and that the various kinds bloom at different times. The greatest show of blossoms furnished by any one group of cacti is that of the Prickly Pear. Wherever it is found, when its rounded segments are outlined with magnificent flowers it often covers entire acres in an extravagant burst of bloom.



The peyote button has no spines, but it may be lethal in its effects if eaten.



The pencil cactus looks like a dead twig until its lovely red flowers burst into bloom.

The pin cushion cactus brightens the desert when it blooms.



a blast at the--

War Department's Private Garden

by Lee Dufur



s IT preposterous to claim that one busyish, balding official could look out of a plane window and joggle the whole fate of our mili-

tary installations—as well as that of desert lovers everywhere? That is what I think happened about twenty five years 15,000 square miles, and the only war ago. During a flight from the Pentagon to California, this official was so tense over his lapful of papers that his shoulders strained upward to his ears. But when he relaxed and leaned back he saw what appeared to be a great shining beach

"What the hell is that down there?"

The harried aide consulted his maps and replied, "I believe it is the Mojave Desert, Sir.'

"What does it do?"

Nonplussed, his companion restacked the maps, squirmed in the narrow seat, and spread his hands in a gesture which meant, "Who knows?"

Thus the official made it official business to find out.

Now, down there, unseen by him, were millions of plants and animals with the most outrageous forms and peculiarities. Each was going its unique way as for centuries it had . . . without any aid from the United States government. But this particular official, never having heard of a coyote or a Mojave rattler, a yucca or loco weed, was convinced that this barren sand bar was lacking in inhabitants. He was dismayed that this great heap of sand . . . three times the size of Connecticut . . . was just lying there sunworshipping and not asking what it could do against Japan and Hitler.

By God, a war was going on and even

the desert should pay attention! When his plane settled at Los Angeles, he had readied a list of other eager military men who were to hear of the Mojave's unproductivity. Together they would convert this waste into a veritable garden of Eden for our military installations.

Now the burning old Mojave contained known there was the war of survival. Because of the scarcity of rainfall, such war was endlessly necessary. The Indians knew it. The first greedy, hurrying emigrants to the gold fields of California learned it. The bearded and tough prospectors still lived by it. On the Mojave one fought only to stay alive!

But once the "no-retreat" minds of our military had fastened onto the possibilities of the Mojave, they hastened to chunk it up into a dozen or more plots of vast size. These would-be gardens were given such euphonious sounding names as: NAVAL ORDNANCE TESTING STA-TION, EDWARDS AIR FORCE BASE, and MARINE CORPS TRAINING CENTER. Although one could drive a hundred miles and meet nothing more formidable than a horned toad, they strung up thousands of miles of woven wire fences. Each fence was topped with a few strands of barbed wire-for the esthetic effect.

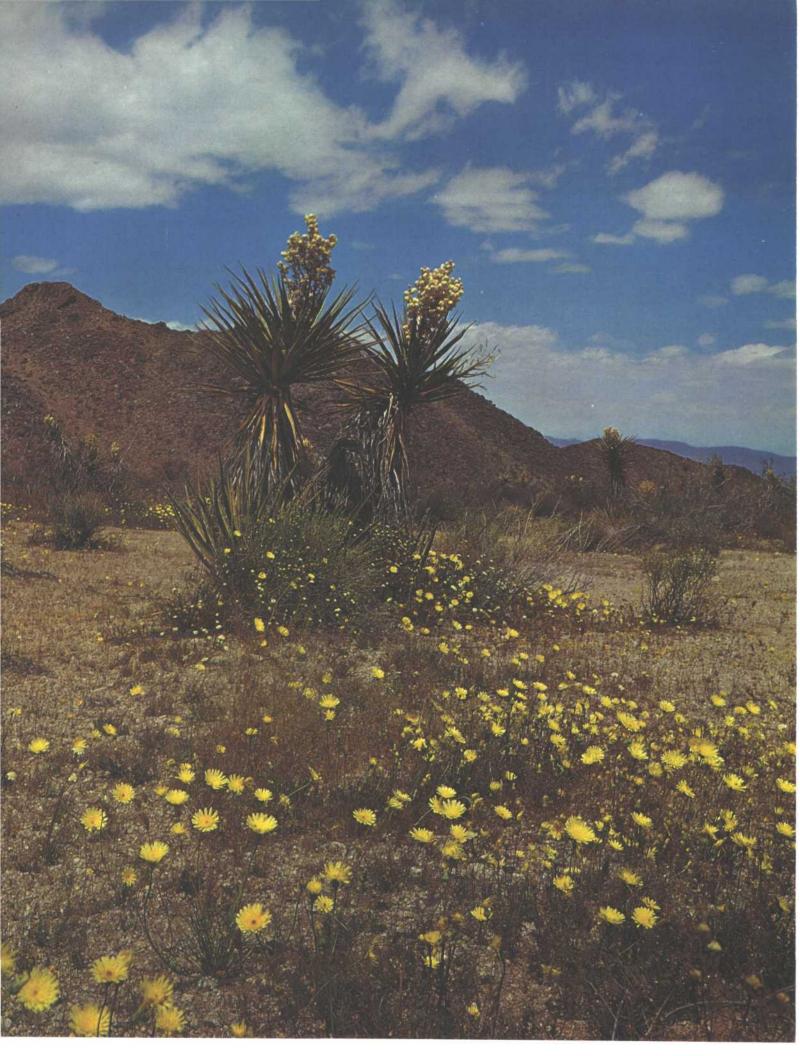
To make the unattractive gardens inhabitable, landscape artists were sent forth. Each in turn gasped at the choices nature had made in her plantings. They were particularly disturbed by that thing upon the landscape called a Joshua Tree. It stood, from ten to forty feet tall-big, ugly and angular—all over the hot face of Mojave. Its trunk was rough and hard, with spiny spears instead of leaves. This Joshua tree was not really a tree, but a

rebellious member of the lily family. But it did, in some cases, resemble the prophet Joshua with arms upstretched, commanding the sun to stand still. The weird, wildly pointing branches spurred the planner on like Don Quixote to do battle against them. But when they resisted with stubbornness born of centuries of fighting to live, he retreated to plan his strategy-and immediately sat on a thorny

All the desert plants proved as stubborn, so there was little hope of improvement, as enough water could not be found to keep spring all year. Perpetual spring would have been ideal. Even a government landscaper could see that nature had done a fine job with spring. Its advent was an unbelievable wonder. Suddenly it came, when the nourishment from the sand combined with the scant yearly rainfall, brought forth blossoms with hues and shapes to be seen nowhere else on this

Botanists say six hundred separate varieties bloom there, but to the viewer it is one magic sheet of color, blending, contrasting and changing as the sun moves warmly over it. By kneeling one can see the brown land covered with incredibly fragile primroses beside sun-revering heliotropes and the showoff verbena above the little desert star who peeks from a crack in the rocks.

But spring on the Mojave vanishes almost before the human eyes can focus on its loveliness. Even the memory dims quickly as the sun bears down and one almost believes it was all a mirage. Left standing are the smelly creosote bush, the deep-rooted mesquite and woody-stemmed yucca. They all continued to grow as before, with the other natives; wild buckwheat, desert ghost, mariposa lilies . . . and Joshua trees.



Undaunted by the gardeners' failures, the military went forward scouting for animals with which to stock their gardens. Aware now of the desert's resistance to change, they choose carefully. The animals they sent out were young, hardy, intelligent and adaptable. And they were called Marines, Sailors and Air Force Men. Cleverly they put these newcomers to work to eradicate the undesirable native animals. But the natives, too, were intelligent, hardy and adaptable-or they wouldn't have won the survival on Mojave. The wily old Mojave rattler wouldn't shake a rattle to give away his position. The chuckwalla melted into the other scenery when approached.

Finally the newcomers agreed to coexist with the natives, with one notable exception. They reserved the right to battle with the vinegaroon. This would have been unnecessary, too, if some naturalist had explained that he is really a harmless, friendly, but busy little bug. His looks are his only defense. But those great strong mandibles, looking as if they could chew up a man, and the long, antenna-like palps would frighten a Marine sergeant. However, Mr. Vinegaroon had no quarrel with the bountiful Marines. He loved bright lights, food and a good bed as well as they—and showed up regularly wherever these were provided. No Marine, Navy nor Air Force Man could run as fast, hide as well, eat as quickly, nor appropriate a sleeping bag as early as a vinegaroon. They could have learned much from him. But one thing he could not understand—that he was not what they dreamed of when they thought of sharing their bed and board.

But happily the war ended and the young beasts were freed and stampeded to their homes to find something more attractive than a vinegaroon or a horned toad with which to share their lives. But something was missing and it still is. Something unheard of had happened. Old Mojave had touched them with her terrible fascination. Almost without knowing it they had learned to love her. Sailors chuckled, and then were comforted by an ocean of sand. Marines had grown to

believe that the Golden Gate and the Redwoods were mere trifles compared to Mojave.

At home they continued to think of her and would say, somewhat nostalgically, to a wife or child, "Someday I'll show you the sunrise on the Mojave Desert."

In the din of a city they would recall the solitude that made Mojave seem alien to the rest of our earth. They would occasionally remember an old Mojave Indian camp they hadn't explored for artifacts. There were agates, jasper and chalcedony left out there waiting to be hunted. Above all they remembered the clean, dry air and the long night silences.

They would tell their friends, proudly, as if they had had a hand in her creation, "More unbelievable things are true and more fantastic lies are told about the desert than about any other place on earth."

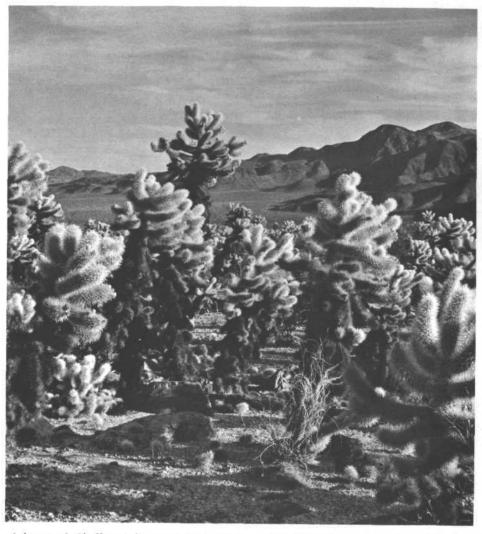
After a time, the length depending upon how deeply they had inhaled the spirit of Mojave, they would gather up their families and head for a vacation on the Mojave. They wanted to point out to their sons the cleansing harshness of the Mojave.

But they planned without remembering the ways of the military, who were only using minute sections now. Nevertheless they have all these years, to this very day, kept up the barbed wire fences and "RESTRICTED. POSITIVELY NO AD-MITTANCE" signs around their deserted gardens. Since when have government agencies ever released anything their clutching fingers once touched? So the expectant family is frustrated. Also frustrated and furious are the smog-choked Southern Californians. They need a place to picnic, camp, rock hunt, or just plain breathe. All these people stand outside those fences begging for what is rightfully theirs.

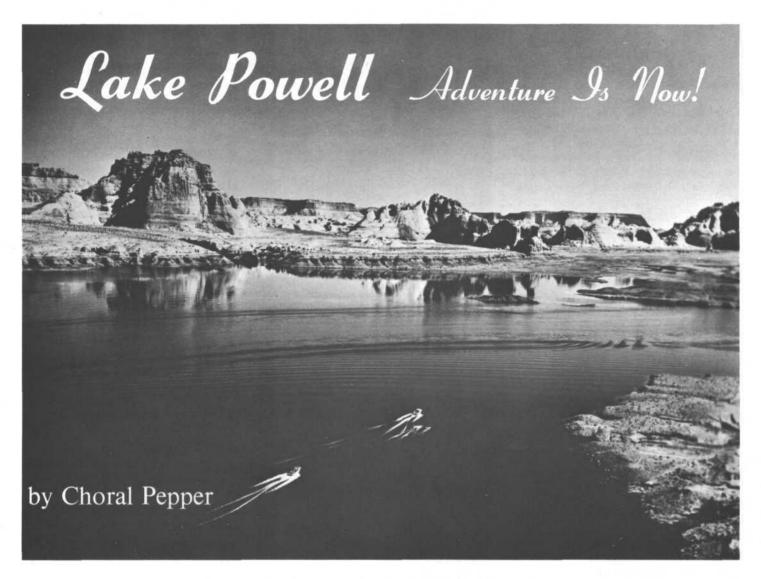
One set of unfeeling officials confiscated the desert at a time when the country was sharing all its goods to win a war. Now their unfeeling and obtruse replacements are still unaware that it has any use if they don't need it. It seems to me the time has come for all desert lovers everywhere to raise a mighty howl!

Would it now be preposterous to believe that if all these people sign a petition that reaches from New Mexico to the Pacific Coast that someone would unroll it, and then roll up some of that barbed wire?

"Then truly (to borrow words from the prophet) the desert shall rejoice and blossom as the rose. It shall blossom abundantly, and rejoice even with joy and singing."



A forest of Cholla might intimidate a stranger, but desert lovers have learned to love its soft contrast to the desert scape.





RESTED in the shade of the stone rainbow, wondering why so many lament the way Glen Canyon used to be instead of praise the way it

is now. I even felt a bit guilty because I was loving it so much—the globs of bulbous sandstone whipped into swirly mountains, the rock-walled chambers we'd explored between Wahweap Marina and Rainbow Bridge landing, and the secluded grotto on Lake Powell where we'd tied up our boat for a private swim.

Rainbow Bridge is the most impressive attraction of new Lake Powell, especially when you consider that until Glen Canyon Dam tamed the raging white rivers of the Colorado, a view of this natural rainbow involved an arduous overnight trip by muleback from Rainbow Lodge on top of Navajo Mountain, or a dangerous week-long trip down the Colorado River with a professional riverrunner.

Now you can rent a boat or launch your own at Wahweap Marina near Page, Ari-

From Northern Arizona into Southern Utah Lake Powell is 186 miles long with 1800 miles of spectacular shoreline. Below, complete facilities, including a free launching ramp, are available at the Wahweap Marina, just north of Glen Canyon Dam.



zona, and after a pleasant two-hour cruise, enjoy an easy mile-long hike to the buttress of this fantastic structure. President Theodore Roosevelt described it as the greatest natural wonder in the world. If you are suspicious that his enthusiasm was engendered with relief after the hardships he endured in getting there, you should see it for yourself. Like we did, and probably like he did, you'll sit at its foot wishing you could describe it in words strong and beautiful and never used before.

While Rainbow Bridge may leave you weak with awe—and a little fatigued from the uphill climb—there are lures on new Lake Powell more exciting than its scenery. Old canyons and landmarks are under water, sadly enough, but like stars, as each falls another ascends to take its place. Rising water levels, still about 200 feet below maximum, continually reveal new country never before explored.

The lake covers an enormous area, 186-miles in length with over 500 miles of meandering shoreline. There are currently three concessions where you may launch your boat, Hall's Crossing, Hite, and Wahweap, each far distant from the other. The only one with a paved road to it is Wahweap Marina, across the bridge from Page, Arizona, on U.S. 89 and within sight of Glen Canyon Dam. Here a luxurious motor hotel has been built by famous river runner Art Greene

For a map of Lake Powell and other information see page 43.

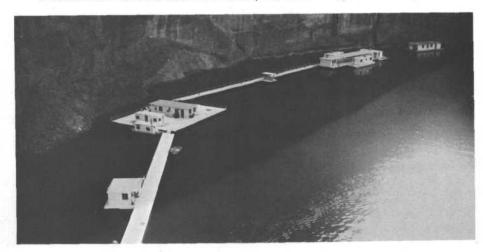
and his marina, which lies in the bay below, can handle boats of any size. There is no season on Lake Powell. Trout and bass bite summer and winter. Snow covers the mountain passes in Utah and Arizona, which adjoin this desert lake, so it is safest to tow in your boat before snow falls, but in the lake region itself, you can dress to suit the temperature and never suffer with cold nor heat.

If you have wondered whether or not Lake Powell is interesting enough for an entire season of boating, the answer is yes. Anything shorter is frustrating, but still worth the time it will take to get you there. The scenery is spectacular, almost too much so in parts. It is fine for the soul to experience Man's insignificance in relation to Nature, but we're still Man. After awhile this realization begins to pall. Then you want to feel alive. You want action and mastery. You want to propel yourself through water, land a fighting bass, or climb a hill above

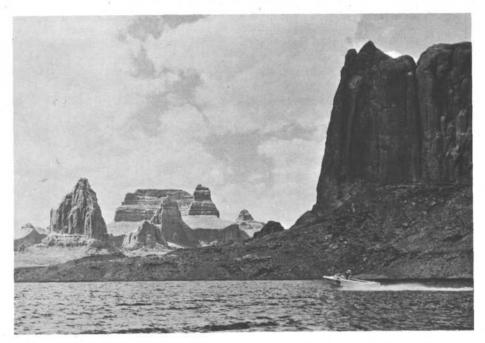


The National Park Service maintains a pier at the landing area below Rainbow Bridge.

The awesome natural arch is a mile hike from here through scenic canyons.



Also at the entrance to Rainbow Bridge there is a floating marina with gasoline and food supplies.



An ever changing geologic and color panorama unfolds as you travel along the shore of Lake Powell and into the once inaccessible canyons.

the shore and discover a Moqui ruin.

And this is what is so wonderful about Lake Powell. The mystery of the past taunts the present. It draws you further and further into endless high-walled canyons which finally grow so narrow you can only imagine that they open into tantalizing chambers impossible to explore. Less than four years ago, those canyon floors, which now lie 400 feet under water, may have been threaded with trails left by a people too ancient for historians to define. But now you see the roosts of eagles. Perhaps when the water rises another 200 feet to expose mesas on top of these geologic cracks, you'll find signs of a more recent tribe of man, the Navajo Indian, whose legends describe Rainbow Bridge as the rainbow that turned to stone.

As you start up-river from Wahweap Marina, you are deep in Glen Canyon, looking up through a cylinder of fringe-straited walls. You know immediately why Navajos weave rust, brown, gray and black into their prayer rungs. This is the color of their land.

There are no long stretches of beach here, but canyons like Pick Axe or Cathedral open into sky-vaulted grottos where fish dart among sunbeams in the emerald waters and each plop of your oar creates a melodic echo. Perhaps that is why you cut your motor in these serene, private little pools; or perhaps it's because you don't want to contaminate them with unnatural sounds. At any rate, most of the canyons in this part of Lake Powell provide at least one sandy or clean sandstone ledge with plenty of room for a small fire, if you carried wood, or to set up your portable stove and camp for the night.

There are few, if any, wild animals in this lower region of the lake. Ferns hang from cracks in walls and occasional clumps of trees grow amid cacti, but even the bugs so common to other desert areas haven't descended these steep walls.

About the time you begin to feel claustrophobic, canyon walls diminish into wide-spread, cascading cliffs and soon the terrain takes on greater variety. Water-filled canyons and gulches may be level on one side of your boat, mountainous on the opposite shores. The thrill of this country now is in exploration. Other than the big events, like Rainbow Bridge and Glen Canyon Dam itself, no one can foretell what you'll find. What they saw might be under water when you arrive. On the other hand, you may find something modern eyes have never seen.

In the upper regions of the lake you

might see a herd of buffalo wander down to drink in a new lagoon created in a water-filled valley of the Henry Mountains—country which has never known a wheel. And there are fish, fish, fish—trout, big mouth bass, catfish. The fish are everywhere on the lake and the season is all year.

On any part of Lake Powell you can escape people in a matter of seconds. Those who follow crowds, congregate around the dam area where you can take off on water skiis from Wahweap Marina and return to civilization within an hour or two. But once you leave the Marina

and skim a mile or so up-river, you rarely meet more than one or two boats enroute to, or returning from, Rainbow Bridge. Art Greene of Wahweap also has a floating marina at Rainbow where you can refill your gas tank and replenish supplies.

But if you want adventure and solitude, continue up-river from Rainbow. Where the shores grow more enticing, you'll discover that beaches of bugless, burrless, snakeless red sandstone are softer for camping than they look and that the wild, rainbow-hued incredible world that surrounds your campsite is your own little world while you're there.

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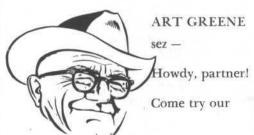
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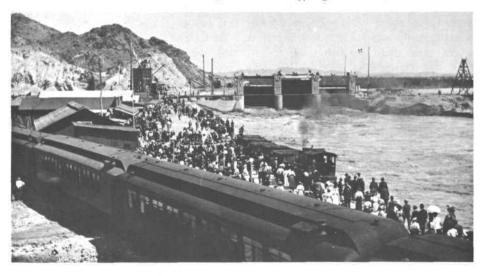
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Yuma Then; Yuma Now

by H. Faye Minnich

(who was there then)



CLIMBED down from the Southern Pacific train on one of Septembers' hottest days 51 years ago. I'll admit I didn't know what to

think as I looked around, but I needed a job so I began to call the situation an adventure. I had come to Yuma to teach. I learned as much as I taught.

Yuma is in Arizona, bordering the east side of the Colorado River, about 20 miles north of Mexico. My teaching job was on the west side of the river in California, post office Bard. Yuma was, and still is, the hub of the locality. There

was Main Street with a cafe or two, a couple of general stores, a drug store and a few saloons—the old time kind with swinging doors. There were three or four churches, two doctors, one elementary school and a small high school which had originally opened up for business in the notorious old territorial prison.

Occasionally a cowboy would drop into town, throw his horse's rein over a hitching post and go somewhere to eat or drink, his chaps flapping around his legs. People who lived on the California side did most of their shopping in Yuma. They rode horses or came in spring wagons to the river, hitched their horses to



the mesquite trees on the bank, then either walked the foot bridge alongside the railroad track across the river, or freried across.

The old ferry encouraged Yuma's growth. Many a California-bound immigrant crossed the river at that point, riding the Butterfield Stage Coach. Ruins of one stopping place west of the river, where travelers could get food and a change of horses, can still be seen. It is now U.S. Route 80.

For centuries the land in and around Yuma belonged to the Indians, mostly the Quechans and the Yaquis and some smaller tribes. The first white settlers were attracted by gold. There was a lot of it in the hills and shipping the ore by the Southern Pacific became an industry. Jesuit missionaries taught the Indians and were instrumental in getting the government to establish a school, a church and a hospital on a hill on the California side in the late 1700s. That became Ft. Yuma.

Gradually a city began to grow. The people were folksy and sociable. Teachers were invited to parties. Yuma is still like that. Two outstanding pioneer names were the Brownstetters and Sanguinettis, both merchant families. They are no more, but they deserve credit for getting Yuma off to a good start.

However, a few of Yuma's pioneers were unfriendly on occasion. An early settler told me of an incident that happened to him one dark night. He was going through Yuma from the valley settlement of Somerton with a wagonload of hogs. It had been raining and the street was rutty and difficult for driving. Making the situation more weird, a saloon door opened and in the brief light he saw somebody pitch something out onto the street. When he reached that point, his horses balked. Leaving the pigs squealing behind him, he got down from his seat to investigate. The body of a dead man stretched across the road. The settler pulled the body to one side; then his horses consented to proceed and the party moved on.

The sun is Yuma's most dependable feature. One of the first hotels offered free meals to customers any day the sun did not shine sometime during the day. Things really began to buzz in and around Yuma in 1912. Thanks to Theodore Roosevelt and other forward looking fathers, the Laguna Diversion Dam was built under the Reclamation Act of 1902. Completed in 1912, it was the first project of its kind on the Colorado River. Until then, irrigation was privately owned.

Under Reclamation, each side of the

river was levelled and divided into 40 acre farming units. These plots, with irrigation structures installed, were acquired by drawing. The applicant whose name was drawn was required to build a dwelling and pay the construction charges over a period of years until it was clear.

With expert advice from the United States Agricultural Experiment Stations, the occupants began farming, at first raising cotton, alfalfa and citrus fruits. Most of them were inexperienced, having been tradesmen, professionals or in fields otherwise unrelated to ranching. Life was no bed of roses, indoors or out. Sometimes the San Jero (the water man, pronounced Zan Kero) would ride his horse up to the house and call or whistle, "Yoo-hoo. Take the water now." Whether the rancher was snug in his bed or eating lunch, he immediately went to open his gates and irrigate his crops. Mosquitoes, rattlers and scorpions often disputed his rights. The San Jero now telephones or uses a car to notify water users.

The refrigerator of those early days was ingenious. It consisted of a box with shelves, covered with burlap or canvas, and kept dripping with water from an overhead tank. This simple method of evaporation was surprisingly effective in keeping butter and milk. Electric refrigerators might have been in the back of somebody's head then, but there was no electricity, except in Yuma.

Some of the women and children were sent off to the coast for the hottest weeks of summer. Those not so fortunate had to match wits with the weather by jumping into irrigation ditches. The muddy water was no complexion treatment, but in lieu of swimming pools it was cooling.

Things went along pretty well until 1906, when the mighty Colorado went on a rampage and a good part of Yuma and farm land on both sides of the river were flooded. Tremendous losses were suffered in crops, homes and business establishments, Following this catastrophe, the Parker, Hoover and Imperial Dams and the All-American Canal were built, which solved the flood menace. All diversion in the Yuma area now is from Imperial Dam to the All-American Canal, which supplies a good part of Imperial County in California and Yuma County in Arizona. The service is known as the Bureau of Reclamation.

Most of the water conversation and control program occurred during the 1930s when the country was badly in need of prosperity. People came from all parts of the country to work on the dams. Some liked Yuma, summer heat and all, and remained, sending for relatives and friends.

Yuma is still growing up, but it has come far in the last 50 years. All the comforts of life available elsewhere are available there. One can stay in modern hotels or motor lodges, or live in air conditioned houses. For several years Yuma has had airport service. The airport is now international.

A permanent Marine Base lies nearby and a large military proving ground is about 20 miles to the north where ideas are born and tested. A modern hospital serves the community. The original high school which had its beginning in the old territorial prison now houses an interesting museum. An annual rodeo draws large crowds and Greyhound Dog Racing vies with Santa Anita in betting excitement. The huge million dollar Greyhound Club House with its 40 acres of parking space is a show place. There are shopping centers, of course, and a new six million dollar center is in the planning stage.

Outstanding in all the Yuma story are the surrounding farms on both sides of the Colorado. Agriculture still stands first, but it is a big business and not many operators fool around with 40 acres. Land which cost the original settlers \$77 an acre, plus the dwelling, now sells for upwards of \$1000 per acre. From this once challenging, useless looking land comes much of the nation's cotton, alfalfa, citrus fruits, lettuce, carrots, peanuts, melons, sweet corn, sugar beets, dairy products and meats. Some crops are grown for seed. Ninety-five percent of the world's production of Bermuda Grass seed is harvested in Yuma County. Brangus cattle, a cross breed of the Aberdeen Angus and Brahma, got their start in Yuma County. They are beefy and adapt well to the hot climate because they have sweat glands.

This arid expanse needed only man's interest and skill to transform it into an Eden. The population is estimated at 33,950, with a probability of 57,000 by 1970. Those who stay in the summer heat move from air-conditioned cars to air-conditioned dwellings. They might whistle, "Whew! It's hot today," but they aren't suffering any more.

Lest some wonder how Yuma got its name, it must be admitted that nobody knows for sure. There is still a Yuma Indian Reservation and some think the name originated from humo, Indian for smoke. The earliest settlers saw brush fires on the river bank and were told the Indians made medicine and seeded clouds for rain with the smoke. The Indians themselves like to be called Quechan, but their agency on Ft. Yuma is listed as the Ft. Yuma Sub-Agency. It is confusing.

The rugged souls who created Yuma paid the price. Those who enjoy it now are collecting dividends.



When the Colorado River jumped its banks, Yuma suffered with the flood, but the catastrophe instituted a reclamation project that resulted in the produce shown below.





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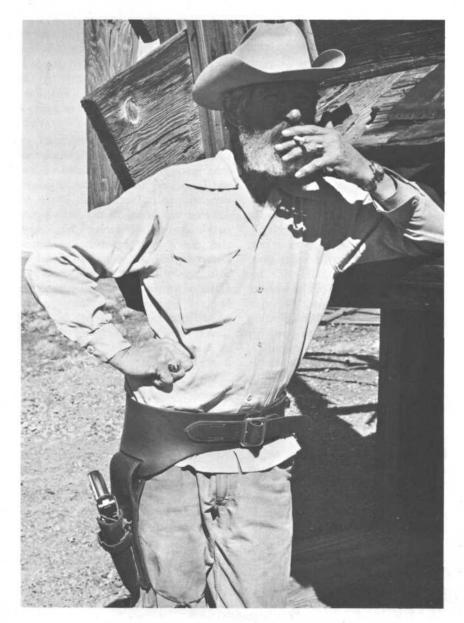
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"Yessir, I could tell you lots of stories about this place," he said. And, he did!

THE GOLDSTONE SAGA

by John Pitts



very now and then you'll spot one—one of those curiously different forks of time where, in the course of history, the ages meet and the past

mingles with the future.

Such a fork is Goldstone, a sparsely populated piece of the Mojave desert north of Barstow. Only two neighbors occupy this ancient site. One, the space tracking station of JPL; the other is the old Glory Hole mine. The population

of the tracking station fluctuates from time to time, with some of the nation's top scientists and technicians converging, upon the desert antenna farm to reap the knowledge of space. The population of the Glory Hole, a few miles down the road, remains constant, though, with one solitary resident named Chester. No one knows his last name. Chester is a six-gun totin' centurion who protects a cluster of weather-beaten, dilapidated shacks and rusty mining equipment for an Eastern syndicate to keep in bean and tobacco

money. Caution must be taken to protect vandals and sight-seers who might harm themselves as well as the property.

A sad but inevitable tale is revealed on this barren land where the paths of these two neighbors cross. For the JPL scientists and technicians, it is the ushering in of a new age—the space age. Space vehicles launched from other parts of the nation and bearing such famous titles as Ranger, Mariner and Pioneer relay their findings to the huge, saucer-shaped antennas here. This data will be used to assist in manned explorations of space.

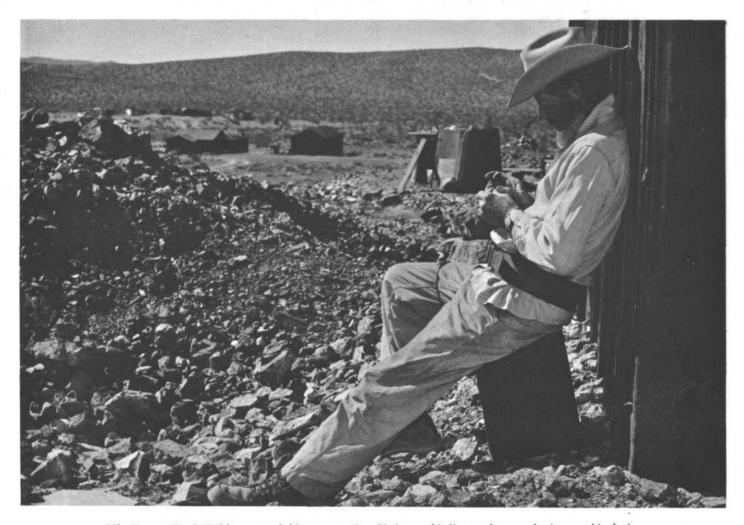
But for Chester, it is the ushering out of another age—the age when man came to the desert to explore its soil for riches. Day after day, Chester employs another type of watching. He watches as sand, sun, wind and time dissolve the last remaining traces of the glory that once belonged to Goldstone. His eyes, set in his cracked, leathery face above a scraggy beard, show that the destructive elements have taken their toll upon the caretaker, also.

Chester recalls the time when the Goldstone area was dotted with ranches. Cattle Who can imagine the stories these two hundred-foot ears will hear from space in the years to come.



could be seen on every hill and the Glory Hole was a tent town of 10,000 inhabitants. The dry lake bed, now used by JPL for a landing strip, was a genuine lake. It was a time of hard work, hard liquor and hard religion, but cattlemen and miners prospered alike. Now all is changed. The miners knocked the bottom out of the Glory Hole and an earthquake, it is reported, knocked the bottom out of Goldstone Lake. JPL employees report that on occasion torrential downpours have filled the lake with waves lapping the road, but quickly the water sinks out of sight. There are no more ranches, no more mines, no square dances, picnics, revivals, brawls nor wrestling matchesonly the weathered shacks and the weathered caretaker. And when they are gone, only the antennas and the highly skilled attendants will remain.

But who knows? Perhaps a century from now another "Chester" will reside at Goldstone. And visitors will trek out to talk to the "old-timer" who guards the relics of an old rusty antenna in the desert.



The "mayor" of Goldstone and his community. Sitting, whittling and remembering are his duties.

The Duchess Castle Mystery

by Ida Smith



ou can see the "castle" by looking over a volcanic cliff from a spot along the Tsankawi Trail in Bandelier National Monument in north cen-

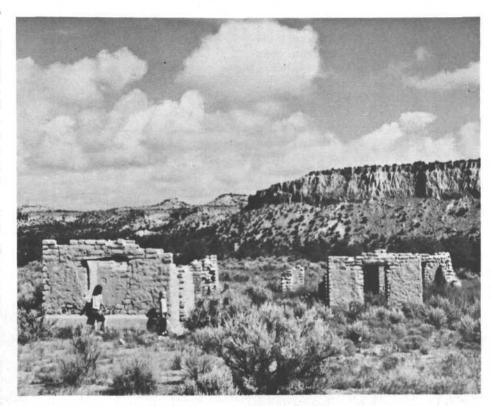
tral New Mexico. The group of adobe buildings, which from a distance resembles a castle, are now in ruins and are completely hidden from the paved highway among junipers and pinon pines. An air of mystery surrounds them for not much is known about their history.

Known as "Duchess Castle" for many years, the buildings were financed by Vera Von Blumenthal, a Russian noblewoman, though not a duchess, and her wealthy friend, Miss Rose Dugan, in the early 1900s. The buildings housed living quarters for the two women and a school where they encouraged the making of fine pottery and the revival of other ancient Indian crafts.

Many of their students came from the pueblo of San Ildefonso not far away and during this period San Ildefonso pottery received its most notable impetus. The school was encouraged by the Laboratory of Anthropology, a department of the Museum of New Mexico in Santa Fe. Mme. Von Blumenthal aided by buying the finest of the Indians' crafts for the museum collection and Miss Dugan contributed cash prizes for their best work displayed during Fiesta Week.

The buildings of the school were made of adobe bricks. A cement cistern held their water supply, which had to be hauled in, except what could be salvaged from rain drainage. Remnants of a small chapel stand among the ruins, evidence of an attempt to encourage peaceful relations among the students. But the reverence students held for the Great Spirit did not always color their relations with one another. Due to feuding among pupils, the school sometimes closed, although Dr. Kenneth Chapman, then head of the Laboratory of Anthropology, and Mr. Wesley Bradford cooperated with Mme. Blumenthal and Miss Dugan.

Sometime in the 1920s the school was



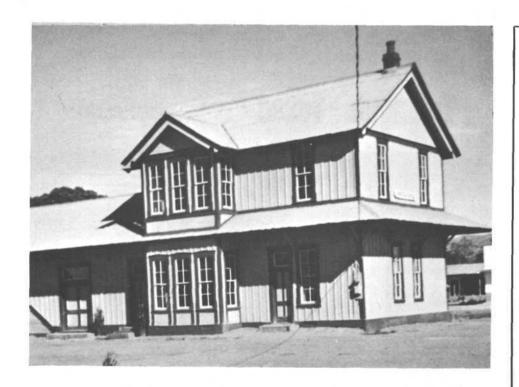
The ruins resemble a castle from a distance, but the buildings were actually built of adobe brick. Right: Part of the building on the hill above the school is believed to have been the residence of Mme. Blumenthal and Miss Rose Dugan.

abandoned. Miss Dugan became ill and the two women left and never returned. The best of the school's pottery was taken to the Laboratory of Anthropology.

Fantastic stories have been told about the Castle. Buildings were ransacked by treasure hunters until the National Park Service took over in 1934 and erected fences. What treasure hunters did not know was that the members of Russian nobility who brought treasures to this country were smart enough to keep them in bank vaults.

Mallow and other wild flowers decorate the silent grounds in summer. Relics, prehistoric and contemporary, are protected now and for all time by the National Park Service.





Roundhouse Gothic by Margaret Davis de Rose



AILROADS may come and railroads may merge, but there is a small town in southern Arizona that refuses to let the spirit of railroading disappear

from its local scene. And certainly there isn't a retired "Railroader" alive whose eyes do not light up when he comes to Patagonia, 19 miles east of Nogales. There, on State Highway 82 sits a two-story depot which dates back to the distant past when "Casey Jones" roared down the track. A plaque near the front door summarizes the story behind this snappily restored turn-of-the-century station.

Actual service on the Patagonia Branch of the Southern Pacific ceased in 1961 when the Company petitioned the Interstate Commerce Commission to abondon it. The request was granted. So the deserted building, not quite old enough for Social Security, took on a neglected and pathetic appearance. Local residents didn't worry too much, however, as the "Roundhouse Gothic," as they called the depot, was a conversation piece and a delightful "study" for artists seeking the flavor of the Old West.

In its heyday, Roundhouse Gothic was a handsome building of which the elite—both cows and cowmen—were proud. Wealthy miners, too, were pleased to parade up and down the plat-

form awaiting their private trains, their royal guests or merely freight cars carrying their gold, silver and copper ore. But when, in 1962, word reached Patagonia's 540 local residents that their beloved landmark of 66 years was to be demolished, they rose in unison to fight.

The Southern Pacific tore up the rails, but allowed the building to stand. Immediately the Sonoita-Patagonia Rotary Club took over. They restored it to its original "beauty" and repainted it the familiar brown and yellow. So once again artists, historians and natives were happy.

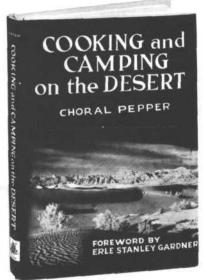
Then, in 1964, the Arizona Highway Department decided Route 82 should be widened to take care of increasing auto traffic. Much to everyone's amazement, including the engineers, it was discovered Roundhouse Gothic stood smack-dab in the middle of the proposed road. There seemed to be no hope. On July 6th, the day of execution, another old landmark was destined for destruction.

Then again, organizations, natives, friends and even enemies, rushed to protect the depot. The Rotary Club obtained a deed to the building from the Southern Pacific. They also acquired a strip of land on the railroad's right-of-way. With their hard-gained money, they moved Roundhouse Gothic 45 feet away, to safety. So July 6th, 1964, came and went. The Southern Pacific Depot remains as a symbol of a romantic period in American history called the Railroad Era!

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by Choral Pepper with a chapter on Driving and Surviving on the Desert

by Jack Pepper



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A monthly feature by the author of Ghost Town Album, Ghost Town Trails, Ghost Town Shadows, Ghost Town Treasures and Boot Hill

Terlingua, Texas BY LAMBERT FLORIN





HE ruins of sun-drenched Terlingua stand on a slope facing the Rio Grande. From almost any spot in the old quicksilver mining camp you

can look over the river to the rocky mountains of old Mexico. There is something different about Terlingua, something romantic. Part of this aura derives from the smooth syllables of its name, an appelation more musical even than the pure Spanish from which it must have been derived, tres lenguas. Some say the "three languages" are the Indian spoken by the original inhabitants, the Spanish used by their conquerors and the English of latercoming Yankees. Another version also

seems logical, the Indians of the wide flung desert country along the Rio Grande used at least three dialects of their language.

When the first Spanish speaking explorers arrived at the junction of Terlingua Creek and the Rio Grande, well before 1800, they found a village of adobe huts fenced with ocotillo canes. The natives there were friendly, but raiding Apaches were not. These intruders frequently drove out villagers, who later returned to find all brush and wood structures burned, their cattle killed. Depredations were slowed, if not entirely halted, in 1850 upon the arrival of troops of U.S. Cavalry. It wasn't until 1880 that the

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For many years Indians of all tribes had been making free use of the soft, easily crushed red rock along Terlingua Creek to manufacture war paint. It remained for cattle wranglers Devine McKinney and Jess Parker to recognize the rocks as cinnabar, the ore which yields mercury, or quicksilver.

While seeking a mining claim to the land, the wranglers were disappointed to find that Howard E. Perry of Portland, Maine, had beaten them to it. History is a little vague as to why Perry wanted the property, but certain it is that when the lumberman received an inquiry from Mc-Kinney and Parker about the land, he didn't answer it. After a third solicitation, the tight-fisted, close mouthed Mainer began to wonder what was so all-fired desirable about his waste land on the international border. So he wrote to Wingfall Van Sickel of Alpine, Texas, 90 miles from Terlingua, to ride over there and take a look. Although Van Sickel was an attorney by profession, he must have been a prospector at heart because he recognized the cinnabar. When convinced of the worthwhile extent of the red deposits, he urgently advised Perry to hurry out to Texas and tightly secure his claim.

Perry did as Van Sickle advised. He set up a large scale cinnabar mining operation on Terlingua Creek, hiring experienced Robert Lee Cartlege of Austin to supervise it. "Primitive" describes the project in its early stages. When enough raw red ore had been hand dug by Indian and Mexican labor, it was loaded onto a wide-wheeled wagon that could negotiate the road to Alpine through the sandy river washes.

Cinnabar is usually a combination of some form of sulphur and the desired mercury. Refining is comparatively simple-just enough applied in the roasting ovens to drive off the easily vaporized sulphur, then raised sufficiently to vaporize the mercury which is caught in a still. The metal is liquid more than 13 times as heavy as water. It is stored and shipped in "flasks," containers similar to a metal pipe with a screwed-in metal "cork" to prevent the fast-running, evasive stuff from leaking out. The standard weight of such a container is 761/2 pounds, a standard since Roman times when the flask was of pottery.

Terlingua has a history of water problems—too little available at the surface, too much in the lower levels of the mines. Often the precious liquid had to be rationed out by the pail full. But down in the shafts of the mines, seeping water accumulated to depths that at times precluded mining. The lady of the adobe house went each morning down to the little tank which accumulated what flowed down from a small spring above, filled her pails, then balanced them on the ends of a yoke for transportation. An almost unlimited amount of water flowed past in the Rio Grande, however, but it was too thin to plow and too thick to drink.

Perry's Chisos and Terlingua Mining Companies paid off very well for years, the characteristic fluctations of his silvery metal alternately elevating and depressing prices. During a low period, World War I broke out and the demand for mercury expanded the economy of Terlingua to such an extent that owners built a movie house, a church and a large company store. Perry extended his operations beyond the point of stability. With the ending of hostilities, his empire collapsed.

Today the once teeming town is deserted, except for a caretaker at the store. Enough buildings survive to make worthwhile a trip to see them. Impossible to overstress is the warning that many yawning, open shafts exist all over town. These are not fenced nor protected.

Our photo is taken from what would in Italy be the loggia of the most impressive structure remaining in Terlingua, one which housed offices and quarters for top employees. Seen at left are the store and other company buildings. Through the last arch at the right are the mountains of Mexico across the Rio Grande.

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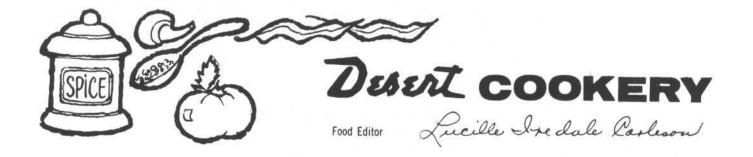
By SAM HICKS

Foreword by Erle Stanley Gardner

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CHILI-TAMALE CASSEROLE

- 1 lb. ground beef
- 1/2 cup chopped onion
- 1/2 teaspoon garlic salt
- 1 tablespoon chili powder
- 1/8 teaspoon cumin
- 1 can tomato soup
- 1/2 can sliced ripe olives
- 1 can prepared tamales

In skillet cook meat until gray with onion, chili powder and cumin; stir to separate meat. Add soup and olives, Pour into shollow baking dish. Remove paper from tamales, discarding juice, and place over meat layer. Bake at 350 degrees for 30 minutes. If tamales begin to look dry, cover with foil for the last ten minutes.

CORNISH HENS MANDARIN

- 4 Rock Cornish Game Hens
- ½ teaspoon each of thyme and tarragon crushed salt and pepper to taste
 - 2 limes
 - 4 tablespoons butter
 - can Mandarin oranges, undrained
 - 1 can water chestnuts, drained and sliced

Place hens breast side down in greased roasting pan. Salt and pepper and sprinkle with half the herb mixture and juice of 1 lime. Dot with 2 tablespoons butter. Roast uncovered at 350 degrees for 30 minutes. Remove from oven and turn other side up and sprinkle with remaining herbs, juice of other lime and dot with remaining butter. Add Mandarin oranges with their liquid and add sliced water chestnuts. Return to oven and roast 30 minutes longer or until done. Place birds on platter and thicken the sauce with 1 teaspoon corn starch dissolved in cold water. Cook for a few minutes until thickened. This sauce is delicious served over cooked rice or may be poured over hens.

HAM SOUFFLE

1/2 cup butter or margarine

1/2 cup flour

Blend these together. Add 2 cups hot milk and cook until very thick. It will pull away from pan. Remove from heat. Add 6 egg yolks beaten until light, ½ teaspoon salt, ¼ teaspoon pepper, a dash of cayenne and 1 cup grated cheese.

Stir over heat until cheese is melted. Add $\frac{1}{2}$ cup finely chopped cooked ham.

Allow to cool while you beat 6 egg whites until they form peaks. Fold lightly into the cheese mixture. Pour into buttered individual casseroles or souffle dishes. Cover tops with slices of Swiss or American cheese. Bake for 15 minutes in very hot, 500 degree, oven until they are puffed high and crusty. Serve at once. Half this recipe makes three large or four medium servings.

CORN BEEF CHEESE CASSEROLE

- 1 can corned beef, flaked
- 1 tablespoon chopped onion
- 1 can tomato sauce
- 1 package cream cheese (3 oz.)
- 3/4 cup cottage cheese
- 1/3 cup sour cream
 - 1 tablespoon chopped green pepper
- 8 ounces noodles, cooked and drained

Heat tomato sauce, corned beef and onion, simmering until onion is tender. Combine cottage cheese, cream cheese, sour cream and green pepper. Place half of the noodles in greased casserole, top with cheese mixture, then remaining noodles. Pour meat mixture over top. Bake at 350 degrees for 30 minutes. The cheese mixture gives this dish a very rich flavor. Serves four generously.

HAM SLICE DINNER

- 1 ham slice, 3/4 inches thick
- 1 can small lima beans or 1 package frozen

salt and pepper

- 2 cups grated American cheese
- 6 slices pineapple or 6 peach halves

1 tablespoon melted butter
Broil ham on each side for 10 minutes. Meanwhile heat canned beans
or cook frozen ones; drain, salt and
pepper. Pile beans on ham and
sprinkle with cheese. Place fruit
around ham and dribble with butter.
Return to broiler and broil until
fruit browns and cheese melts and
browns lightly. Serves 4.

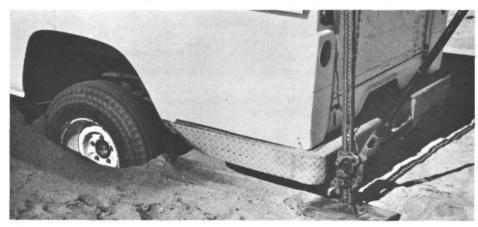
ROUND STEAK NAPOLIAN

- 1 round steak, 3/4 to 1 inch thick
- 1/4 cup Italian dressing
- 2 tablespoons lemon juice
- 11/2 teaspoons salt
- 1/8 teaspoon garlic salt
- 1 tablespoon brown sugar
- 2 tablespoons cooking oil
- 1/2 cup water
- 1/4 cup chili sauce
- 1/2 teaspoon Worcestershire sauce
- 1 small onion sliced
- 1 small can mushrooms

Combine lemon juice, dressing, brown sugar, salt and garlic and marinate steak in this for 4 hours, turning over after 2 hours. Drain and brown steak on both sides in oil. Add water, chili sauce and Worcestershire sauce to marinade, and after taking steak out of pan and pourng off the oil, place back in pan, slice onion over steak and pour marinade mixture over it. Put lid on pan and simmer for $1\frac{1}{2}$ or 2 hours until tender. Pour mushrooms with juice over top of steak. Cook a few minutes to heat mushrooms. Place in hot serving dish, thicken gravy and pour over. If you prefer you may add sliced carrots at the same time as onions, and omit mushrooms.

Hints for Desert Travelers

by Bruce Barron



Looking like a monstrous bumper jack, the Hi-lift Jack traces its heritage back to the early day Wagon Jack with which pioneers hoisted covered wagons over perilous immigrant trails. This "Hilift" jack can be scooted under a bumper that is almost touching the ground, and will raise the end of a heavily loaded vehicle to a height of four feet, giving ample room to remove high centers, fill in voids, dig out sand or muck, put on tire chains, or change a flat.

If you slide off the road, you can maneuver your vehicle out of a ditch by placing this jack in a horizontal position against the bank and pushing sideways. If you are on a high center, put the jack under the front bumper and raise until you have good traction on the rear wheels, then back up. The jack will pivot as the vehicle moves.

Another easy maneuver is to center the

jack at the front or rear of the vehicle and raise to its fullest height. By giving the vehicle a hard nudge to the left or right, it will vault off the jack onto firm footing. Do not put the base of the jack in its socket when pivoting, since it may damage the socket or cause the jack to bend under severe stress conditions.

Ranchers, sheepherders, forest rangers, road and utility maintenance crews, all can testify as to the versatility of this dependable jack. Priced at about \$30.00, the Hi-lift Jack (manufactured in Bloomfield, Indiana) is available at the larger hardware stores and at Farm and Ranch supply houses. You will have to improvise a base for the socket to sit on-laminating two 12" x 15" pieces of 3/4" plywood will suffice. In the above photo, Sam Hicks, "trail boss" for Erle Stanley Gardner expeditions, demonstrates the high-lift jack.



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BACK COUNTRY

COMPILED BY JACK PEPPER

EDUCATE AND PROSECUTE!

A long time Desert Magazine subscriber recently asked me why we do not publish rock collecting articles with maps showing the location of collecting areas as Randall Henderson, founder of Desert, once published in every issue.

I told him we do not for the same two reasons we do not pinpoint in our travel maps the exact location of petroglyphs, pictographs and artifacts. We state they are in

the area, but not precisely where.

The reasons are greedy commercial collectors and vandals. These people probably constitute only a fraction of one percent of desert travelers, but their wanton destruction of private and state property, litter of trash and complete disregard for other people increasingly is found, even in the most remote regions.

Trashy people are not only criminals, they are worse than animals; at least animals clean up after themselves. As for the exhibitionists who carve their initials over pre-historic petroglyphs and spray paint on rocks, they should not be classed as homo

sapiens, but rather below the apes, and that's not being fair to apes.

Once the desert and mountain areas, as one old prospector said, "belong to just us and God." This is not true today. As the tempo of competitive business and municipal living increases every year, families are discovering the beauty and tranquility of suddenly coming upon a wild palm grove, visiting old mines where they can get a first hand view of this historic past of The West, or finding ancient Indian ruins and artifacts. We are gratified that these "newcomers" are finding this new life through the pages of DESERT MAGAZINE. We welcome them to the desert areas, but we do not welcome the people, inconsiderate or deliberate, who litter and destroy.

The considerate must educate the inconsiderate to act in the desert as they would in their own home or back yard. DESERT welcomes suggestions from readers as to

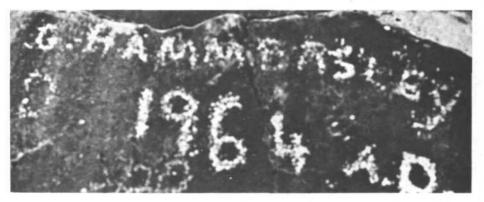
how this educational program can be increased and broadened.

As for the vandals there is only one way to stop their destruction—through criminal prosecution. Unfortunately, there are not enough rangers and officers to cover the hundreds of thousands of square miles of the outdoor West. The Antiquities Act of 1906 makes it a criminal offense to deface or destroy historic or prehistoric ruins or artifacts ON ANY FEDERAL LAND. This includes not only recreational areas and parks but *all* land owned by the Federal government, including Bureau of Land Management areas. And the various states of the West have similar stringent laws for state land.

To help preserve the natural beauty of our western outdoors, DESERT will intensify its attempts to educate the inconsiderate. To combat the deliberate vandals DESERT henceforth has a standing offer of \$100.00 to any person who aids in the arrest and conviction of anyone violating the United States Antiquities Act, and \$25.00 to any person who aids in the arrest and conviction of anyone violating any anti-litter

and anti-destruction act of any of the western states.

In addition, to constantly remind people of the increasing amount of vandalism and disregard of other persons rights to enjoy unmolested nature, we will publish a photograph each month entitled "Vandal of the Month." Let's all join in this battle to protect our American heritage.



The exhibitionist who carved these letters over the Indian petroglyphs near Barstow, California when caught can be sent to jail in violation of the Federal Antiquities Act.

Western Events

Information on Western Events must be received at DESERT six weeks prior to scheduled date.

PHOENIX JEEP CLUB 8th Annual Jamboree, March 20-26, Stanton, Arizona. For 4WD vehicle owners and families and guests, NOT for sand buggies, two wheel drive vehicles, motorcycles or scooters. Write P. O. Box 168, Phoenix, Ariz. 85001 for details.

AVION TRAVELCADE CLUB Western International Rendezvous of 1967. April 5 through 9. Holiday Isle Trailer Park, Tucson, Arizona. OWNERS OF AVION CAMPERS AND TRAILERS ONLY.

NORWALK ROCKHOUNDS 3rd annual show, Apr. 8, New River School, Norwalk.

KERN COUNTY MINERAL SOCIETY 9th Annual Gem and Mineral Show, April 15 & 16. Kern County Fairgrounds, Bakersfield, Calif. Admission free. Saturday 10 A.M. to 10 P.M. Sunday 10 A.M. to 6 P.M.

BERKLEY GEM AND MINERAL SOCI-ETY'S 4th annual World of Gems, April 15 & 16, Hotel Claremont, Berkeley, Calif.

RIVERSIDE COMMUNITY FLOWER SHOW, Apr. 15 & 16, Riverside Armory, Riverside, Calif.

SAN DIEGO ANTIQUE BOTTLE CLUB'S 2nd annual show, April 22 & 23, Town Hall, Julian, Calif. Admission free.

AVION TRAVELCADE CLUB, Spring Rally of California Unit. May 4 through May 7. Ranch Oso, near Santa Barbara, Calif. OWNERS OF AVION CAMPERS AND TRAILERS ONLY. For information write Williard Young, P. O. Box 744, Vistta, California, 92083.

INDIO SIDEWINDER 4WD CRUISE, May 6-7. A family 4WD event open to the public where four wheel drive enthusiasts are led on a cross country trip. See Erle Stanley Gardner's "Th Desert Is Yours" for description. For complete information write to Sareea Al Jamel 4WD Club, P. O. Box 526, Indio, Calif. 92201.

TOURMALINE GEM AND MINERAL SOCI-ETY'S 18th annual show, May 6 & 7. Helix High School, 7323 University Ave., La Mesa, Calif. (San Diego). Free Admission.

YUCAIPA VALLEY GEM AND MINERAL CLUB'S annual show, May 13 & 14. Grange Hall, 12165 2nd Street, Yucaipa, Calif.

TRAVEL



Want to Explore the Chocolate Mountains?

Since the start of World War II the Chocolate Mountains, east of the Salton Sea have been used as an aerial gunnery range and therefore restricted to travel or exploration. Prior to WWI these mountains were the stamping ground for many a prospector and are rich in lore and semi-precious stones. DESPITE WHAT YOU MAY HEAR FROM UNINFORMED SOURCES THESE MOUNTAINS ARE BEING USED BY THE MILITARY TODAY AND ARE PATROLLED TO KEEP OUT UNAUTHORIZED PERSONS.

However, you can go into the mountains if you obtain permission first. As a result of information supplied to DESERT by Frank Anton, Garden Grove, Calif. we wrote to the Fleet Liaison Division, Marine Corps Air Station, Yuma, Arizona 85364, and received the following prompt and courteous reply from Major A.L.Blair, U.S.M.C., Fleet Liaison Division Officer:

Dear Mr. Pepper:

Thank you for the issue of Desert Magazine which I found to be a very

interesting publication.

Restricted area R-2507 which encompasses some of the Chocolate Mountain Range is controlled by MCAS, Yuma. The northern portion of this area is used extensively as a high explosive ordnance impact area and is not considered safe for ground travel without being accompanied by explosive ordnance disposal personnel due to the possibility of the presence of unexploded bombs. The southern portion of the range is available for entry when it is not scheduled for weapon training

Anyone desiring entry into restricted areas controlled by MCAS, Yuma should write a letter to the Commanding Officer, MCAS, Yuma, giving the dates desired, number of people involved and an itinerary to include the route to be covered while in the restricted area. A phone call to this office 725-2214 would be the best procedure for determining dates the range is not scheduled. Each person entering the range will be required to negotiate a Hold Harmless Agreement and return it to this office prior to entering the range. When this has been accomplished, a letter of authorization will be mailed to you which will contain instructions regarding procedures prior to entry and upon departure from the range. I hope this will supply the information you have requested.

Sincerely,
A. L. BLAIR
Major, U. S. Marine Corps
Fleet Liaison Division Officer



" I'M LEAVIN YOU, SAM." YOU CAN KEEP EVERYTHING ."

Sound Off!

Do you have any information you want to share with other Back Country Travelers? Do you have any questions about how or where to obtain an item, how to get somewhere, condition of terrain, is a certain area restricted? Then write to SOUND OFF. Desert Magazine, Palm Desert, Calif. 92260.

In your January issue you mention a metal detector. What I want to know is what kind do you use or what would you buy and what price range do you recommend? The wife and I are in our 60s and expect to roam around the desert and mountains just to see what we can find.

S. D. Case.

Glendora, Calif.

Readers visiting our book shop and by mail daily ask me what metal detectors I recommend. Buying a metal detector is like buying an automobile and should be based on what you are looking for and the amount of use. There are several well built models, which, though they vary in appearance, all are good and will bring you a great deal of fun . . . and possible monetary reward. I suggest you write for information to the businesses whose advertisements appear in Desert Magazine, or stop by their stores and they will gladly give you a demonstration. I always carry a metal detector with me . . . and someday I'll find that elusive pot of gold.

DRY WASHERS

In your latest issue, March, I noticed a request in the 'Sound Off' column for information regarding blueprints for a dry washer. In the California Mining Journal for February, on page 6 there is an advertisement for blueprints. The address is: Bowser, 1675 Wilson Ave., Upland, Calif. 91786, Dept. CMJ, phone (714) 982-2554. There are two models listed. Model 10—\$7.80; Model 30—\$10.40 (gas driven). We both enjoy your magazine very much. We just wish we could spend all of our time on the desert, chasing lost gold mines instead of pursuing food and tax money.

Mrs. O. J. Ainsworth, Blythe, Calif.

Concerning plans for a dry washer, a complete set of instructions is found in the Jan. 1966 issue of "Popular Mechanics." It is powered by a ³/₄ H.P. Ohllson and Rice gas engine.

Bruce Muff, Beverly Hills, Calif.

Trading Post CLASSIFIEDS

AUTO ACCESSORIES

"HOW TO INSTALL 11" Brakes on a Jeep"—\$1. Also. "How to Install 283 Chev. in CJ-5" without moving steering, brakes, clutch arrangement—no cutting front crossmember or firewall—\$1.00. Lloyd Novak, Box 1324, Whittier, Calif. 90604.

LAND ROVER OWNERS—Armstrong Hi-Flotation tires, 9" wide wheels, genuine Rover centers. Free catalog. Cepek, Box 181-D, South Gate, California 90280.

JEEP CONVERSION ARTICLES. Chevrolet steering; 11" brakes; Chevrolet V-8 in CJ-5. \$1.00 each article. Lloyd Novak, Box 1324, Whittier, Calif. 90604.

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RANCHO ENVIRONMENTAL EMPHASIS: Point enlargement of Leonardo de Vinci's swipe at Botticelli for landscape triviality! Twentynine Palms. (Call 367-6124 for directions).

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GIFT FOR graduates. "Get Rich in Spite of Yourself." Foolproof formula can be mastered in three hours—\$1. Gifts, 622 Hot Springs, Santa Barbara, Calif. 93103.

ARIZONA TREASURE Hunters Ghost Town Guide. large folded map 1881, small early map, 1200 place name glossary, mines, camps, Indian reservations, etc. \$1.50. Theron Fox, 1296-E Yosemite, San Jose, California.

SURVIVAL BOOKS! Guerrilla Warfare, Wilderness Living, Medical, Guns, Self Defense, Nature. Books—Vital, Fascinating, Extraordinary; Catalog free. Adobe Hacienda, Route 3, Box 517A, Glendale, Arizona 85301,

GUIDE TO MEXICO'S gems and minerals: localities, mines, maps, directions, contacts. English-Spanish glossary, too. \$2.00 postpaid. Gemac, Mentone, Calif. 92359.

FREE 84 page catalog on detectors, books and maps. General Electronic Detection Co., 16238 Lakewood Blvd., Bellflower, Calif 90706.

NEW 7TH EDITION: "Ghost Town Bottle Price Guide"—redesigned, revised, enlarged. Leading western price guide on antique bottles, \$3 postpaid to Wes Bressie, Rt. 1, Box 582, Eagle Point, Oregon 97524.

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SNAKES OF ARIZONA, 224 pages, 82 photographs, 82 range maps of each subspecies, complete literature search, and collecting experiences. This work will be useful to sportsmen, campers and hikers, naturalists and students with its 40 page introduction to the differing habitat areas of the state, 10 map diagrams, and desert lore. Hard cover and heavy enamel paper. \$10.63. Azul Quinta Press, 3766 S. Mission, Fallbrook, Calif. 92028.

"GUIDE TO Old Bottles, Contents & Prices." 250 illustrations, ads, labels plus price list, \$2.75. Valuable cross reference to "Handbook for the Bottleologist;" 1000 bottles, description and rarity, \$2.75. Richard Fike, 1135 Maxfield Dr., Ogden, Utah 84404.

INVITATION TO VISIT your Oregon Desert this summer. Begin enjoyable vacation now. Send for "The Oregon Desert" \$6.50; "East of the Cascades" \$4.95; "Oregon for the Curious" \$1.95; "Northwest Gem Trails" \$2.00. Postpaid. Comprehensive list of paperbacks, cloth-bounds on bottles, ghost towns, rock hunting. Gemland, Box 243, Bend, Oregon, 97701.

A BOTTLE COLLECTOR'S Book and "The Past In Glass" by Pat and Bob Ferraro—two most complete sources available for novice and advanced bottle collectors. Illustrations, checklists, explanations. \$3.25 each postpaid. The Little Glass Shack, 3161-B 56th St., Sacramento, Calif. 95820.

BEGINNERS GUIDE. Where the gold is and how to get it. Detailed instructions and sketches plus free placer gold specimen. Price \$1 cash. N. Schultz, Sutter Creek, Calif. 95685.

NEVADA TREASURE Hunters Ghost Town Guide. Large folded map. 800 place name glossary. Railroads, towns, camps, camel trail. \$1.50. Theron Fox, 1296-C Yosemite, San Jose 26, California.

WYOMING COLLECTOR'S GUIDE—excellent book with maps of good rock hunting localities. Find jade, agates, fossils, etc., on your next trip to Wyoming. \$2 postpaid. Eloxite Bookshop, Wheatland, Wyoming 82201.

COMPLETE SET "Desert Magazines" including some binders—\$225. Excellent condition. Phone (area code 213) 845-7337.

"GEMS & MINERALS," the monthly guide to gems, minerals, and rock hobby fun. \$4.00 year. Sample 25c. Gems & Minerals, Mentone, Calif. 92359.

"ASSAULT ON BAJA," E. Washburn, 3934 Cortland, Lynwood, Calif. \$2.00 tax included, "zest of dicsovery" writes Belden; "wideeyed experience" says Powell USC.

GHOST TOWN GUIDE: Complete guide to over 100 ghost towns in California, only \$1.95. W. Abbott, 1513 West Romneya Drive, Anaheim, California.

FRANK FISH—Treasure Hunter—said Gold is where you find it. His book "Buried Treasure & Lost Mines" tells how and where to look, 93 locations, photos and maps. 19x24 colored map pinpointing book locations. Book \$1.50. Map \$1.50. Special: both \$2.50 postpaid. Publisher, Erie Schaefer, 14728 Peyton Drive, Chino, Calif. 91710.

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HOW TO PLACE YOUR AD

★ Mail your copy and first-insertion remittance to: Trading Post, Desert Magazine, Palm Desert, California 92260. Classified rates are 25c per word, \$5 minimum per insertion.

DEADLINE FOR CLASSIFIED ADS IS 10TH OF SECOND MONTH PRECEDING COVER DATE.

BOOKS - MAGAZINES

GHOST TOWN MAPS—New book titled "California Ghost Town Trails" has pictures, maps to California ghost towns. \$2.95. A Abbott, 1513 West Romneya Drive, Anaheim, Calif.

MAKE OFFER: Desert Magazine—Volume one, Number one—complete through December 1956. First nine years bound. Miscellaneous 1957—1960. Trebing, 1753 Wilson Avenue, Arcadia, Calif. 91006.

WOULD LIKE to purchase copy of "Treasure Diver's Guide" by John Potter. Please state price. Choral Pepper, Desert Magazine, Palm Desert, California. 92260.

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MAPS

- SECTIONIZED COUNTY maps San Bernardino \$3; Riverside \$1; Imperial, small \$1, large \$2; San Diego \$1.25; Inyo \$2.50; Kern \$1.25, other California counties \$1.25 each. Nevada counties \$1 each. Include 4 percent sales tax. Topographic maps of all mapped western areas. Westwide Maps Co., 114 West Third Street, Los Angeles 13, California.
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- 40 ACRES in Newberry, Calif. The land of lakes. Total price \$2950. Raw land \$100 down, \$35 per month. Owner, Box 304, Hesperia, Calif. 92345.
- FOR INFORMATION on real estate in or near this high desert community, please write or visit Ralph W. Fisher, Realtor, 73644 29-Palms Highway, Twentynine Palms, Calif. 92277.
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WESTERN GOODS

GHOST TOWN items: Sun-colored glass, amethyst to royal purple; ghost railroads materials, tickets; limited odd items from camps of the '60s. Write your interest—Box 64-D, Smith, Nevada.

MISCELLANEOUS

- TWO "WILL" Forms (finest quality) and lawyer's 64 page booklet about "Wills"—complete, \$1.00. National Forms, Box 48313-DS, Los Angeles 48, California.
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LETTERS FROM OUR READERS

Plank Road . . .

To the Editor: In the early days we used the Plank Road across the Sand Dunes, west of Yuma on Highway 80. Today portions of it can be seen from the new road but there is no reference to its use. Surely a section could be mounted at a roadside rest area with an explanation of its function.

EDWARD CANNELL, Los Angeles, California.

Editor's comment: Now there's a good project for a civic or service organization. C.P.

White the First Time . . .

To the Editor: "The Brain Behind the Line" in the March DESERT was of particular interest to me because I think the highway dividing line is one of the greatest developments of modern man. It has probably saved more lives than any other invention. I can remember when there wasn't one.

It had quite a development. At first it was just a plain white line. Then, because of the bad weather problem in the northwest, Washington and Oregon hired an expert on color to see if they could find a color that would have more visibility, As all "experts" on color know, orangish-yellow on black is the most visible; so assuming macadam roads are black this color contrast would be the best. After buying great quantities of paint and striping the Northwest roads, it was found that macadam reflects light in a bluish-gray color rather than black and doesn't work well with yelloworange. But they had the paint so they carried on with it in most areas.

The next big development was the adding of glass reflecting beads, which helped because it reflected auto headlights. Then someone found that by using a broken line it saved money because it took only half the amount of paint. Then symbols were developed such as double lines, double-double lines, combinations of solid and broken lines, undulating lines and color combination lines etc. The next development I expect to see is color coding the turn off lanes on freeways. What a boon this would be for those of us who get in the wrong lane and, end off of the freeway, and can't get back to it!

WILSON TURNER, Whittier, California.

More on Lost Chicago . . .

To the Editor: The ruins you mentioned in the Lost Chicago Mine story (Jan. '67) are those of the Indian Hill Railroad camp constructed around 1910. Work began on the first tunnel in Carrizo Gorge in March of 1910 and continued for many years. Over 400 men were employed and they kept from 300-400 head of stock, which accounts for the semi-permanent appearance of the camp. I don't know of any gold there, but the area is rich in Indian history. There are pictographs, bedrock morteros, rock caves and scattered artifacts. One of the larger caves was inhabited 2000 years ago.

R. M. FERGUSON, Cypress, California.

U. F. O. Watchers . . .

To the Editor: I have a suggestion to pass on to Rock Hounds. Why not include the study of Unidentified Flying Objects in their hobby? Equipment needed would be binoculars, a magnetic compass, radiation counter, and a good camera. Most of this equipment is standard for most Rock Hounds.

First, we must recognize the illusive nature of Flying Saucers. The desert provides a good landing site, especially mineralized areas or those near high power transmission lines that cross the desert.

Most of the satallites and space craft that have been launched travel from west to east, with the rare exception of satallites in Polar orbit. Therefore, anything else would be questionable, especially if at extremely high altitudes and traveling in a straight line.

Magnetic disturbance has been associated with Flying Saucers, causing a magnetic compass to deviate from magnetic north. Should this be encountered, note the amount of deviation and try to estimate the distance of the object and the speed. Static has also been noted in radio receivers.

Automobiles have been known to stall out, as well as their lights dimming, or going out, when disk shaped objects are near, then returning to normal after the object has passed. If this occurs, note how long the lights remain off and observe how far the craft has traveled during that period of time.

For what it is worth, it has been stated that E.S.P. and mental telepathy are part of the nature of these beings; therefore, concentrate on getting the objects to land. While E.S.P. and mental telepathy were once considered occult, they are now accepted and being studied by science. Radiation has also been associated with Flying Disks and often when reported landing sites are examined, they are found to be radioactive. Unusual depressions on the desert should be examined in this new light and every inch of ground examined for radiation, waste droppings, etc.

CHARLES CROSS, Wilmington, California.

Desert Mourns . . .

DESERT Magazine recently received word of the death of the dean of lost mine writers, John D. Mitchell. Mr. Mitchell was author of the best selling lost mine book, "Lost Mines and Hidden Treasures," which has long been out of print. Mr. Mitchell lived his last years in Chandler, Arizona. DESERT Magazine is currently running a series of reprints of his stories which appeared in issues of the early 1940s, now unavailable. C.P.

Desert Bound . . .

To the Editor: I enjoyed the article on the Search for the Golden Goddess by Ed Houck in the January '67 issue. I am adding it to my files for the day I finally leave this smog-filled city in search of "my el dorado," or anyone else's, for that matter.

JOHN CLARKE, New York City.

Letters requesting answers must include stamped self-addressed envelope

Likes Panamint . . .

To the Editor: The article "Tempest in Silver" about Panamint City in the Feb. '67 issue was superbly written. Instead of heaping facts about how much and when upon us, the author told anecdotes related to the human interest and local color of the time. It must have required tremendous research, but it is by far the best article on Panamint I have ever read.

ROBERT SLEDGE, Antioch, California.

Petroglyphs and Pictographs . . .

To the Editor: Since DESERT is averse to verse, but partial to ancient art, I take a very sneaky way this message to impart: The Ancients etched things on the cliffs, Not knowing they were petroglyphs Or that their paintings (some for laughs) Would be admired as pictographs.

EUGENE McALLISTER, Lompoc, California.

Editor's note: McAllister's fascinating collection of arrowheads, all found on the surface of the ground within or near the Coachella Valley of Southern California, is now on display at the DESERT Magazine bookshop. Readers will remember his article about them in the March' 65 DESERT. C.P.

Oil Well Sitter . . .

To the Editor: I picked up a DESERT last year and read a segment of your Magic of Baja series. Would it be possible to order the entire sequence? I have trouble finding copies of DESERT in Texas. Frequently, however, I sit on oil wells in SE New Mexico and pick it up there. Enclosed is my subscription order.

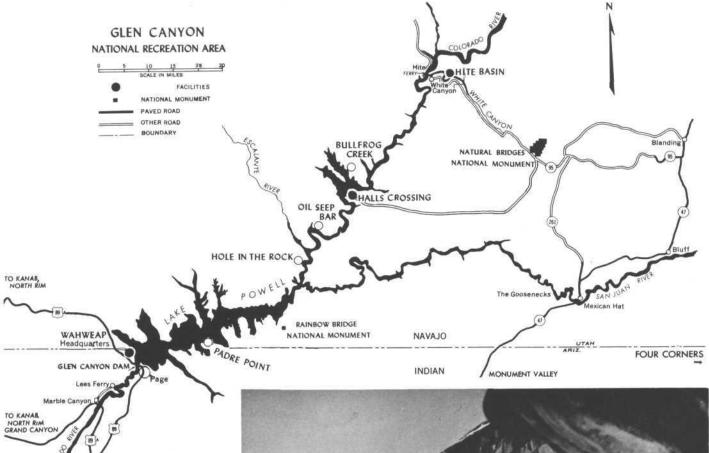
W. T. PROBANDT, Midland, Texas.

Editor's comment: A packaged set with the Magic of Baja series may be ordered from the DESERT Magazine office for \$3.00. C. P.

Ruby Red Arrowhead . . .

To the Editor: In reply to your "January letters column" from Mittylene Burross concerning clear ruby red obsidian arrowheads, in earlier times Indians sometimes knocked the red glass from railroad switch standards to make what were to them excitingly attractive arrowpoints. A photograph of just such red glass arrowpoint may be found in "Indian & Eskimo Artifacts of North America" by Charles Miles. Indian Points made of clear "rock crystal" and "sugar" quartz and also of petrified wood have been found in Calif. What a find! Oh, to be just half so lucky!

MRS. A. E. LOCKHART, Riverside, California.



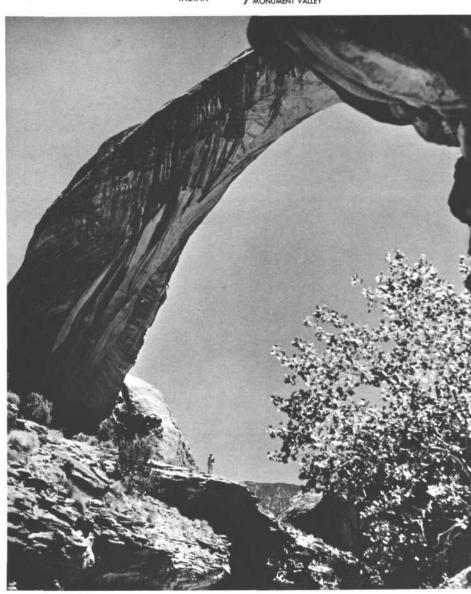
LAKE POWELL FACILITIES

O FLAGSTAFF, SOUTH RIM GRAND CANYON

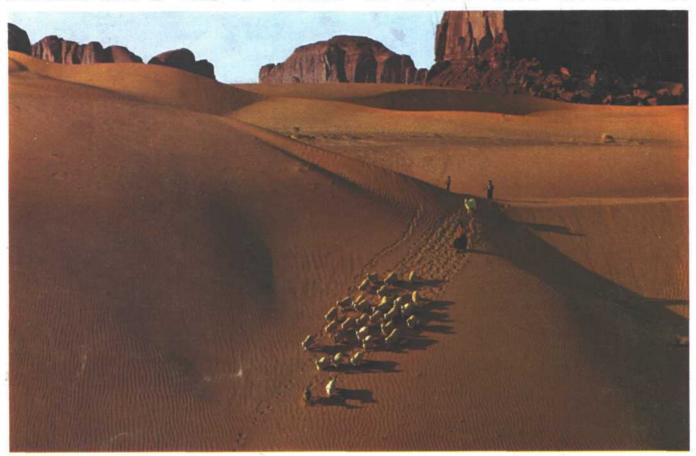
Formed by Glen Canyon Dam, Lake Powell is in the Glen Canyon National Recreation Area and is administered by the National Park Service. (See article on Page 25).

For visitors with either campers or trailers there are excellent facilities at Wahweap Headquarters, 5 miles from Page, Arizona, under the supervision of the National Park Service. Wahweap also has an excellent lodge and a motel. There are also camper and trailer facilities at Hall's Crossing and Hite Basin, the other two Lake Powell launching areas. Pets are okay as long as they are on a leash. Other areas, such as Bullfrog Creek, are being developed but are not yet open. Rental boats are available at all three landings and Wahweap runs a special all-day excursion to Rainbow Bridge with stops at other scenic points for \$25 a person, one third off for children under 12.

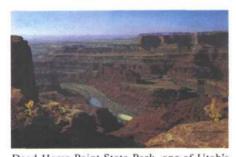
Rainbow Bridge, right, a beautiful and massive rock formation in one of the many canyons of Lake Powell behind Glen Canyon Dam.



AMERICA'S HOLY LAND IS JUST OFF UTAH 47



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